INSTRUCTION MANUAL
OF
SUCTION AND PUMPING
DEVICE 230V, 400V 0.37 kW and 1.5kW

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Instruction manual involves devices about codes:

suction and pumping devices, power supply 400 V

w2021GN, w20210GN

Suction and pumping devices, power supply 230 V

w2021GNF, W20210GNF

INSTRUCTION MANUAL
Suction and pumping device for creaming and pumping honey (PUMPS FOR HONEY) 400V, 230V

The device is intended to pumping operation of honey.

IMPORTANT!

Before using the device, be sure to read the instructions for use and follow the instructions contained therein. The manufacturer is not liable for damages caused by the use of the device contrary to its intended purpose or inappropriate handling.

1. General safety rules of utilisation of device

1.1. Electrical safety

1. Before you switch on the appliance to the mains, one should make sure that the control is off. The ”0/1” switch should be in the ”0” position and knob in the "min" position (model with an inverter 230V). ***”Right”; ”Left” switch*** should be in a ***”0”*** position***!***
2. Make sure that nominal voltage of the device and the power supply source are compatible.
3. The device must be connected to the socket with earthing with the voltage specified on the nameplate of the product.
4. Electrical Installation powering the device must be equipped with RCD (residual current device) with a rated tripping current In no higher than 30mA.
5. Check the function of the RCBO (residual current operated circuit-breaker with integral overcurrent protection) periodically.
6. Periodically check the status of the power cord. If the power cord without the possibility of disconnection is damaged and you need to replace it, then this operation should be carried out as guarantor or by a specialised repair facility or a qualified person in order to avoid the risk. Not use the device when the power cord is damaged.
7. During connecting to the mains, one should be careful.
8. It is forbidden to pull the power cord.
9. The power cord must be kept away from heat sources, sharp edges and take care of its satisfactory condition.
10. Protect the device against moisture;(also during storage)

1.2. Operational safety

1. This equipment is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities , or lack of experience and knowledge concerning the equipment unless this is done under the supervision or in accordance with the instructions for use of the equipment, handed over by persons responsible for their safety.
2. You should pay attention to the children, to ensure they do not play with the pump.
3. In the case of pump failure, in order to avoid a hazard, the repair can only perform specialised repair facility or a qualified person.
4. Do not use the device in the vicinity of flammable materials.
5. Do not carry out any maintenance work when the device is operating.
6. All guards when the appliance is operating must be permanently attached to the device.
7. In the event of any hazard, you should immediately stop the pump operation.
8. Restarting the pump may occur after the elimination of the hazard.
9. The device should only be started inside the premises.

Ban on removing guards when operating the device.

Ban on repairing the device which is in motion.

2. The use of suction and pumping devices

Due to the low speed, pumps are perfectly suited for the pumping (forcing through) of sensitive liquids – do not cause their effervescence or carbonation.

Not be used for pumping flammable substances!

3. Work commencement with suction and pumping device

1. Depending on the type of pump, before the work commencement, the switch must be set in ”0” position and knob in ”min” position.
2. Place of work should be illuminated and kept as clean as possible.
3. Before using, one should exactly clean the pump**.**
4. When washing pump, one should take special care, in order to prevent to the moistness/dampness of the engine and pump control.
5. Then, we connect hoses of suitable diameter from both sides of the rotor with the help of hose connectors (equipped with pump).
6. Before starting, one should pour over the rotor with honey.
7. Switch on the pump to the supply network and check the direction of pumping starting/actuating the pump.
8. If the direction is different from the desired, we stop the pump and we switch the direction on the controller.
9. After completed pumping, wash and dry the device.

3.1. Preparation of the device to operation

ATTENTION!
BEFORE WORK COMMENCEMENT WITH PUMP,
ONE SHOULD POUR OVER ROTOR WITH HOT WATER
(APPROXIMATELY 60 DEGREES)

Directions (for user):

1. On both outlets of the rotor, we connect conduits, put the hose.

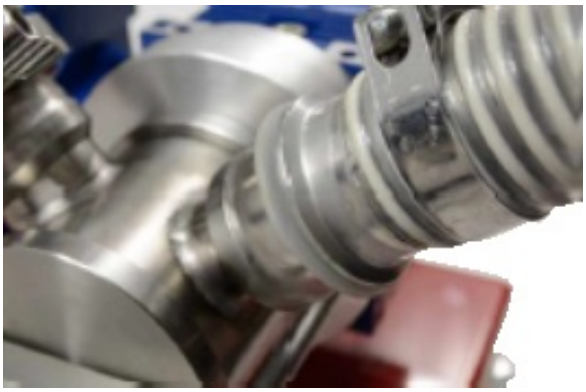
Correct fastening the hose:

We unbuckle the tip/end for the hose

We prepare the hose,tip/end and band clip

We slide the end/tip into the hose and firmly clamp band clip

We place the seal



We put to the hose

We connect the hose to the rotor with the help of the quick release coupling

Correct fastening of the hose to the rotor

2. We pour down honey in an amount of about 1kg (ie. 0.95 kg jar).
3. Hold the conduit up as long as the honey flows down into the rotor.
4. When honey reaches to the rotor, one should place the hose in the tank/container with honey and turn on the pump, remembering to under the second conduit put honey container.
5. When pump will suck in and will pump a little honey, we stop the functioning of the pump and we proceed to work.
6. Before pumping, honey should be heated to a temperature of 30°C.

The pump cable isn't included in a device.

4. Characterization of suction and pumping devices

4.1. Suction and pumping devices with the power supply for 400V

Pumps with power supply for the 400V have the controller with a knob for *"P"(right*), *"L"* (left) *and "0"* (stop) position.

Applied engine for 400V with gear-motor, without the inverter, is powered at 400V voltage.
Depending on the electrical installation, the engine will spin to the left or right.
The switch to the right –*"P",* or to the left - *„L",* is used to select the direction of pumping.
We stop the pump by turning the switch to the stop position, that is "0".

Before pumping, one should check the direction of pumping.

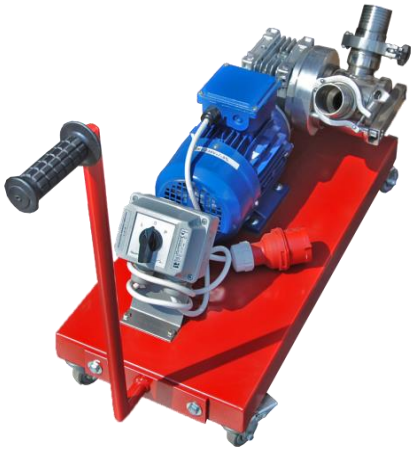


Photo 1. Suction and pumping device 0.37 kW, 1.5 kW, 400 V

Code of the pump	Suction and pumping device for creaming and pumping honey
W2021GN	0.37 kW, 400V - 0 -360 rpm
W20210GN	1.5 kW, 400V - 0-560 rpm

4.2. Suction and pumping devices with the power supply for 230V

Pumps with inverter 230V are equipped with control, which gives the ability to increasing or decreasing the speed of the honey pumping with the help of a knob (of the potentiometer). The controller has two buttons - arrow *"Right* (CW)" and arrow "*Left* (CCW)*",* which are used to actuate the pump.
The direction of the pumping, we select with the help of buttons - arrow "Right (CW)" and arrow "Left (CCW)", and we stop the pump with the help of red "STOP" button.
Engine 400V with gear-motor and the frequency inverter applied (inverter) enables the smooth adjustment of the rotational speed and the power supply for the 230V.

Rotor speed, we set with the potentiometer.
The direction of speed, we change by pressing the left arrow or the right arrow.

Photo 2. Suction and pumping device 0.37 kW, 230 V

Photo 3. Suction and pumping device 1.5 kW, 230 V

Slow-speed pumps:

Code of the pump	Suction and pumping device for creaming and pumping of honey
W2021GNF	0.37 kW, 230V - range from 0 to 360 rpm *(speed adjustment with the help of knob)*
W20210GNF	1.5 kW, 230V - ranges from 0 to 560 rpm *(speed adjustment with the help of a knob)*

Suction and pumping devices - for forcing through, pumping honey. Rotor housing made of stainless steel with elastomer rotor.

5. Technical parameters of devices:

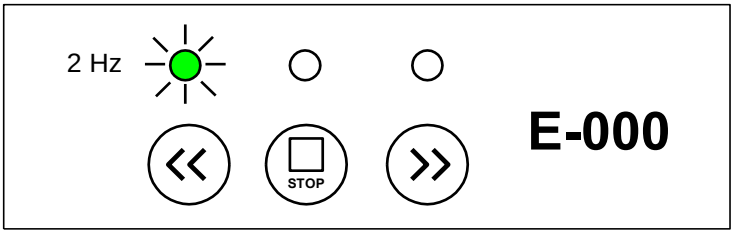
Suction and pumping pumps to honey are divided into two types:

Suction and pumping devices 0.37kW:
- power 0.37 kW
- optimum performance 900l/h, at a temperature of 30° C for honey
- power supply 400V
- gear-motor
- after applying the inverter, power supply for 230V with smooth adjustment.

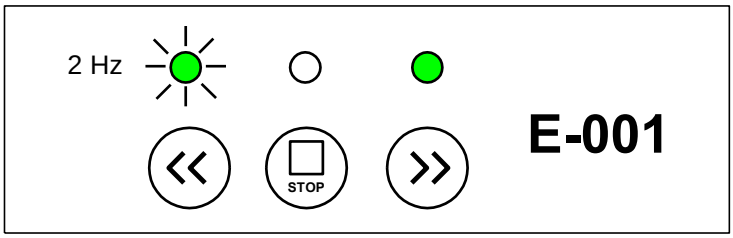
Suction and pumping devices 1.5kW:
- power 1.5 kW
- optimum performance 1500 l/h, at a temperature of 30° C for honey
- power supply 400V
- gear-motor
- after applying the inverter, power supply for 230V with smooth adjustment.

Both types of suction and pumping devices are equipped with road wheels and a handle for easy changing the position of suction and pumping device.

6. Error codes

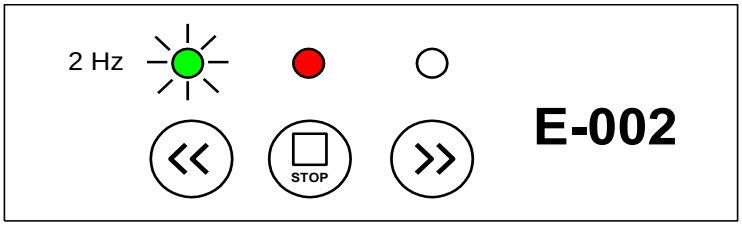


INTERNAL DEFECT OF THE MICROPROCESSOR CONTROLLER

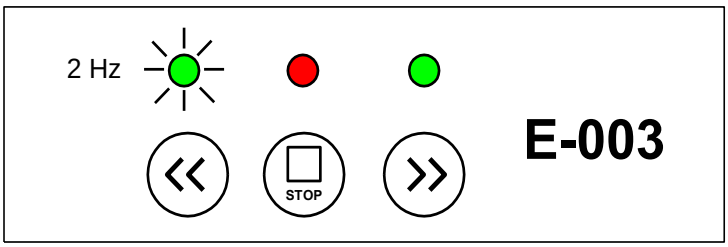


PRESSED / LOCKED THE START BUTTON

DIRECTION - LEFT

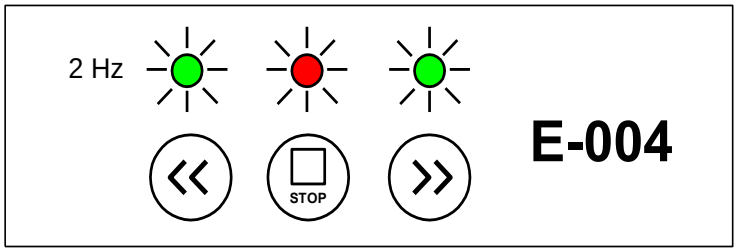


PRESSED / LOCKED THE STOP BUTTON



PRESSED / LOCKED THE START BUTTON

DIRECTION - RIGHT



ERROR OF THE ALARM LOOP - EMERGENCY BUTTON PRESSED

6. Maintenance of suction and pumping devices

IMPORTANT!

Suction and pumping device after the finished work, one should carefully wash in order to remove residual honey, bearing in mind the protection of electrical components.

Directly after work with the device, we put suction conduit into a container with hot water and we are pumping 40l of heated water, to rinse the module of suction and pumping device.
We pump and we pour out water, this operation can be repeated several times. To cleaning/washing of suction and pumping device, one should prepare approximately 40 l of water heated to a temperature from 50**°C** to 60**°C.** This process is necessary and protects the device from damage, which can cause crystallised honey (ie. disruption/tearing of the seal and leakage of honey). In the case of improper maintenance, will occur disruption/tearing of sealant on the shaft of the pumping module. Damage resulting from improper cleaning module is not covered by warranty.

8. Storage

After the completion of the work, the pump must be thoroughly cleaned and dried.
Before each new season, one should make an additional technical review, and in the event of fault detection, please contact the service centre.
The device should not be enabled, if the ambient temperature is lower than 5º C. Before starting the device, in the case when it has been moved from the room with the lower temperature to spaces of higher temperature, you should wait until it reaches the ambient temperature.

9. Disposal

The worn out product shall be subject to disposal as waste only in the selective collection of waste organised by Network of Municipal Collection points for Waste Electrical and Electronic Equipment. The consumer shall have the right to return used equipment in the electrical equipment distributor network, at least, free of charge and directly if a device that is returned is the proper kind and provides the same functionality as the newly purchased equipment.

10. Warranty

Products purchased in the ”*Łyson*” company are covered by manufacturer's warranty.

The warranty period is 24 months.

On purchased products shall be issued a receipt or VAT invoice.

Warranty details are available on the website - www.lyson.com.pl