

Polymerization unit for acrylic plastics **POLY AM**



USER MANUAL

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1. INTRODUCTION

Thank you for having purchased the polymerization unit for acrylic plastics **POLY AM** which, we are sure will all meet all your needs and will satisfy your high demands.

This device has been designed according to the requirements of latest industrial standards and we guarantee that you will use it many years as your closest assistant.

However, inappropriate use may damage the equipment and be harmful to personnel. Please observe the relevant safety instructions and read the Operating Instructions carefully.

We wish you pleasant and fruitful work with the polymerization unit for acrylic plastics **POLY AM**.

SYMBOLS:



This symbol indicates that there is high dangerous tension under the bonnet which it is put on.



Symbol for HOT SURFACE;

ATTENTION: HOT SURFACE! DO NOT TOUCH!



This symbol indicates that the machine complies with the requirements of the Directives for Low Tension and Electromagnetic Compatibility as well as for the Standards harmonized with them.

2. SAFETY INSTRUCTIONS

The following instructions must be observed in order to avoid personnel injury or equipment failure.

- The device must not be run by an operator who is not acquainted with these instructions;
- Before turning on the plug in the net contact check if the voltage in the electrical network correspond to the working tension. In case of discrepancy, consult a specialist;
- On no account do not alter the device;
- The notices and stickers must be kept in good condition so that they are easily readable; they should not be removed!
- In case of longer works at maximum operation temperature the lid of the unit may heat up to 90°C. Therefore, it must not be touched – not even for a short moment.
- At all processing steps which are executed under pressure please wait with the opening of the lid until the compressed air has completely escaped from the pressure pot.
- Please do not bend over the unit while opening the lid. Due to the escape of the hot steam, there is danger of burns.
- Before cleaning and maintenance of the unit or the changing of parts the plug has to be disconnected.
- The machine must not function in case of being damaged and in position to injure the staff or a third person;
- Keep the power cable out of heat, oil and coarse objects; do not catch the device by the cable when you move it.
- Switch off the unit and pull out the plug of the feeder cable from the contact before each cleaning or upkeep.
- Spare parts which are not specified by the manufacturer cannot be used!
- Keep from falling and hitting;
- To accomplish its functions the device must be heated so bear in mind the possible dangers of explosion or emissions of toxic or combustible gas as a result of the heating of materials in the device itself. Therefore, the machine is recommended to be placed in a suitable ventilated spot in the premises.

CAUTION!

If the machine is used by such means not indicated by the manufacturer, the provided protection can get worse!

3. DESCRIPTION OF THE UNIT

This device is used for polymerization of acrylic plastics and stuffing of investments. It is designed to work in dental laboratories.



- 1. Front panel;
- 2. Power switch;
- 3. Manometer;
- 4. Cover;
- 5. Handle for opening / closing;
- 6. Nozzle for exit water;



- 6. Safety valve
- 7. Nozzle for air;
- 8. Power cord filter;
- 9. Power cord;
- 10. Fuses;
- 11. Pressure reducing valve;



- 12. Lock;
- 13. Filter.

4. INSTALATION AND INITIAL START-UP

- UNPACKING**
- Carefully remove modules from packages;
 - Make sure that the mains voltage is ~230V and the contact is reliably grounded;
 - Place the device so that the plug is accessible.

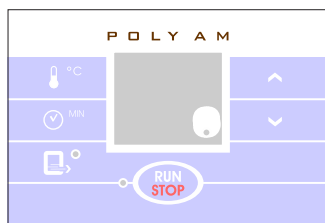
- CONNECTIONS**
- Connect the main air to the terminal with label INPUT AIR on the rear panel. The joining orifice is $\varnothing 6$ sized. The maximum pressure in the mains should not be higher than 6 Bar.
 - Connect hose $\varnothing 8$ to the outlet socket OUT and lead it to the sewage system or to outside container for collection of the resting liquid. This orifice is placed on the right-side lid of the device.

ATTENTION! *Do not sink this hose in any liquid, because this might destroy the unit!*

- The safety valve is also taken out on the rear panel. Put the unit in such a position so if this valve is activated you are able to avoid the damage of another part. Do not put it on combustibles.

5. PRACTICAL USE

PRESETTINGS



The preparation for the work consists in setting of the needed time and temperature.

The adjustments are done using the selection buttons - button $^{\circ}\text{C}$ and button MIN .

After pressing one of these buttons, you will see the current value blinking on the display.

When the indication is blinking, you can change it with the help of the arrow buttons until you reach the value required.

To save this value you must press once more the relevant selection button.

In this way you exit the mode for adjustment of the parameters and the apparatus switches to the mode READY FOR WORK.

The polymerization unit has two working temperature zones which mean that the device can heat at two stages.

For adjustment of the middle stage the same buttons described above are used but they should be kept pressed for more than 2 seconds.

The setting of the middle stage is made in the same way as the final stage.


The middle stage is not accomplished either if the adjusted temperature is 39°C or if the adjusted time is 0 minutes.

WAY OF USE



Put a flask in the device. Pour as much liquid as needed to fill the vessel but below the upper hole. Close the lid till it reaches the stopper. Start the process by pressing the button **RUN/STOP**.

The process can be discontinued any time by pressing the button **RUN/STOP** again.

After starting the program, you must press the button for draining of the liquid, the relevant LED flashes and the liquid will be drained automatically in the end of the process.

In case you need to drain the liquid manually. This can be made when the device is not in mode for program execution. For this purpose, the button  should be pressed. Having emptied the device you must press the same button again so that the electromagnet valve is closed.

If the difference between set temperature and temperature in the bowl is less than 10°C, to be able to start a working cycle you must press and hold the **RUN** button for several seconds. The unit will start after issuing a beep.

This unit can work without heating. You can start different working mode by pressing the two buttons  and  simultaneously.

This way pressure air will enter into the vessel and will stay there for preliminary adjusted time. This mode is useful for preliminary dry pressing of some flasks.

ATTENTION!

Do not open the lid of device before the temperature is beneath 80°C because water is boiling and there is a risk of burns.

Take care of silicone sealing ring that is under the lid. If it is dry, wet it with water before closing the lid to protect it from accidental damage.

THERMAL PROTECTION

This device is equipped with thermal protection. If the temperature in the vessel exceeds 150°C a special component will stop heating.

To restore the normal working, you need to:

- unplug the device from the socket;
- remove the left side cover;
- resume normal work by pressing the red button which is on thermal protection component;

6. TECHNICAL DATA

~230 V, ±10%, 50/60Hz

1. Electrical supply	1220 W
2. Power consumption	II
3. Category of overvoltage	1,5L
4. Effective volume of the chamber	Φ140 h145 mm
5. Interior dimensions	6 Bar
6. Maximum operating pressure	40°C - 125°C
7. Limits set for the working temperature	2
8. Operating temperature zones	1min – 99min
9. Limits set for the time	
7. Overall dimensions:	
7.1. Width	300 mm
7.2. Length	330 mm
7.3. Height	240 mm
8. Model Weight	9,3 kg
9. Working temperature	18°C - 30°C
10. Level of environment pollution	2
11. The device is designed for usage in normal dental premises up to 2000 m altitude above sea level.	
13. The maximum relative humidity of the air must be 80% for temperatures up to 31°C, decreasing lineally to 50% relative humidity for temperature 40°C.	

7. MAINTENANCE

- Avoid positioning of the apparatus in the immediate vicinity of heat sources (radiators);
- Do not leave objects on the body of the apparatus;
- Clean with a slightly moist cloth.
- Change the safety locks with the announced values only, namely:

6,3A/250V; slow (class T)

- No repair activity by a service technician who is not authorized by the manufacturer is allowed!
- The lifting and carrying should be made only with the both hands from below as the furnace stand on end.
- No carrying and transportation in another state except for vertical position is allowed!

8. DELIVERY SCOPE

1. Polymerization Unit POLY AM	1 pc.
2. Drain hose-pipe	1 pc.
3. Spare fuses	
T 6,3A/250V	2 pcs.
4. User manual	1 pc.

PRODUCER: "VOP" Ltd.
2140 IZ "Microelectronica"
Botevgrad, Bulgaria
Tel. +359 723 66303
Tel. +359 723 66304

“VOP” Ltd.
Microelectronica
2140 Botevgrad, BG
Tel. +359 723 66303
Tel. +359 723 66304

Polymerization unit POLY AM

WARRANTY SHEET

“VOP” Ltd. warrants the consumer for proper operation of all parts and materials in this product during a period of **12 months** since the day of its purchase.

During this period VOP Ltd. or its authorized persons will repair on its own account all defects which have occur during the normal operation of the machine.

Defects caused by improper transportation, storage and manipulation of the product or due to malfunction of the electrical mains supply are repaired on the account of the customer.

This warranty shall become void if attempts are made to repair the product by persons not authorized by the producer.

Serial Number _____

Invoice number _____

Date _____



MANAGER of “VOP” Ltd.

CLIENT:

Serial Number _____

Invoice number _____

Date _____

Voucher Manufacturer