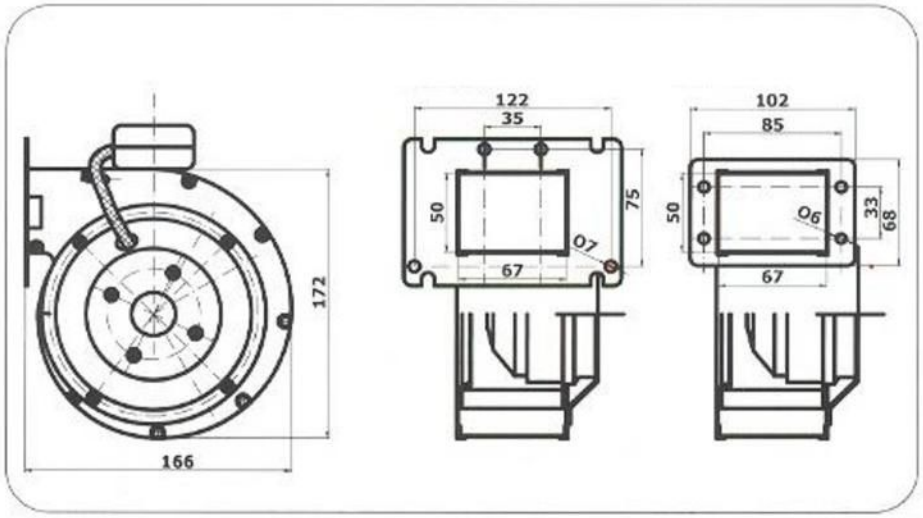
The producer gives 2 years warranty on a fan operated in accordance with O&MM (operating and maintenance manual) but not more than 3 years after the date of manufacture. In case of any failure user sends fan by Polish Post as an economy package at the expanse of service. Defects that revealed during the warranty period will be repaired within 14 days from the date of delivery to the service.
Warranty does not include:

- Mechanical damage caused by external factors,
- Defects caused by improper exploitation (including recommendations descripted in point 5 of O&MM),
- Fans without nameplates

Any changes or modifications will void the warranty. Service can refuse to repair the fan which is heavily dirty or covert with grease, dust, soot or any other tarry material.

Warranty Card is valid only with the date of retail sale date confirmed with the retailer's stamp. The date of production must be the same in Warranty Card and on nameplate on the fan.
This Warranty Card does not exclude, limit or suspend the buyer's rights arising from the Consumer Act.



Technical parameters of the fan

voltage	-	220 - 230V 50 Hz
power consumption	-	70 W
efficency	-	240 m^3/h
compression	-	310 Pa
weight	-	2,0 kg

Fan engine is protected from overheating due to abnormal usage or any other reason. The specified parameters are the maximum for the model without any extra flaps.

1. Types of fans

Different types of fans are marked with letters added to their names, e.g. RV 12 R
Fan with the flap on outlet (used to reduce the natural draft) is marked with the letter R.
Fan with the flap on inlet (used to adjust the efficiency) is marked with the letter K or M (the flap is in the axis of the inlet).
Fan with two flaps is marked KR or KM.
Fan with big collar is not marked and other collars are marked P or E or Z.

Attention: Flap R does not eliminate the natural draft, only reduces it. At high draft there may occur air flow.

2. Application of fan

Fan type RV-12. in different varieties is intended to force the airflow in central heating boilers and other technological devices in ambient temperatures between -15°C and +40°C and relative moisture up to 95%. During the exploitation fan must be permanently attached to the boiler or other air system. Fan is not designed to be used as an independent device for household etc.

3. Construction of fan

Fan body is made of steel sheet covered with powered paint. External rotor engine is placed inside the body and screwed with screws M4. Metal rotor is attached directly to the external rotor of the engine. Air inlet is protected by the cover that prevents from touching the moving parts (turbine). All electrical connections were placed inside the junction box made of insulating material. The engine and also the turbine has a CE declaration of conformity.

4. Installation of fan

To mount the fan to the central heating boiler there are 4 holes Ø7 or Ø6 in the outlet collar. Hole spacing is shown in the figure on previous page. After fixing the fan connect the power cord with the control unit. Check the direction of rotation which must be the same as in the instruction on the body.
Connecting the fan without the cord to the network must be executed in accordance to the wiring diagram located on the plate. Connect the protective cord to the terminal strip opposite the yellow-green wire. Pay attention to the loose wires.

5. Maintenance

Fans working under normal conditions does not need constant conservation.
To ensure the long-term working of the fan check the turbine of the fan before every heating season. If heavy dust covered the turbine it must be cleaned (e.g. by using brush or lightly tapping the body of the fan). If the dust still covers the turbine, in order to clean it, the body must be removed. Such a cleaning should be held by the qualified installer or a service technician. If the fan is used in the dusty environment cleaning should be made every month.
Not cleaned fan provides lower compression and efficiency and does not ensure right boiler functioning and can result in damaging it.

6. Exploitation

Start-up and shut-down of the fan should be made by control unit of the boiler or by using other control devices which are in accordance with the installation project.

7. Safety instruction

Performing any works on the fan may be done after disconnecting it from the network.
Electrical system that the fan is connected to must have ground conductor (electrical ground PE) and have to be made in accordance with safety regulations.
Connecting fan to electrical system should be made by qualified electrician.
It is forbidden to:

- unscrew the fixing screws when the fan is working
- put hands inside the outlet collar when the fan is connected to electrical network (e.g. during installation or conservation)
- remove flaps located on inlet collar

Producer reserves rights to make design changes to improve the products functionality and quality.

8. Disposal of used equipment

According to the provisions of the Act from 29 July 2005 on electrical and electronic wastes it is forbidden to throw equipment marked with the crossed wastebasket with other trash.
The user in order to get rid of electrical or electronic devices is obligated to take it to waste collecting point.
These statutory duties were introduced in order to reduce the amount of electronic and electrical wastes and to ensure appropriate level of collection, recovery and recycling of used devices. Proper realization of those duties is important especially when the used equipment contains dangerous components that have negative impact on the environment and human health.