
PRODUCT DESCRIPTION

The biological wastewater treatment plant RoEco 8 PE is intended for cleaning wastewater from households. The reservoir of the plant is made of polyethylene (PE) and is distinguished for its excellent statics and load capacity. Vertical shape and dimensions of the reservoir enables installation of the WWTP on small surface.

The RoEco treatment plant operates on the basis of the flow technology of wastewater treatment. Water from households flows into the first sedimentary chamber. Across the opening at the bottom of the chamber drains into the aeration part of the plant. In the aeration chamber, through the tube diffusers, air is supplied which, in the form of bubbles rise to the water level. The water then flows over the overflow knee into the third post sedimentary chamber, where the mammoth pump is installed which returns sludge back to the first chamber.

The WWTP RoEco has been tested in accordance with standard SIST EN 12566 – 3.

TECHNICAL DATA RoEco 8 PE

| Technical data | Values |
|----------------------------------|-----------------------------------|
| Maximum daily inflow | 1200 L / day |
| Total volume [L] | 6000 L |
| Installation | Underground installation |
| Dimensions D x H [mm] | Ø 2300 x 2350 mm |
| Diameter of revision openings | 2 x Ø 600 |
| Material | Polyethylene [PE] |
| Inflow and outflow pipe diameter | DN 125 |
| Compressor | Airmac DBMX 150 |
| Compressor power [W] | 170 W |
| Electrical power consumption | 1,50 kW/day |
| Compressor noise [dB] | 46 dB |
| Standard | SIST EN 12566 - 3 |
| UV material stability | Yes |
| Aeration system | Disc diffuser |
| Cover | PE walk - on cover |
| Water outflow | To surface waters or groundwater. |

ROECO WWTP ADVANTAGES

- High cleaning efficiency
- Low maintenance costs
- UV stability control box
- Easy installation
- Stand alone control unit
- Monolithic reservoir
- Revision opening Ø 800
- Low power consumption
- Integrated sample point
- Slovenian product

CLEANING EFFICIENCY

Cleaning efficiency:

COD: **90 %**

BOD₅: **96 %**

SS: **84 %**



Cleaning efficiency checked (Report no.: 211c – 11/5426 – 16) by the institute:

National Laboratory of Health, Environment and food (NLZOH)

MECHANICAL RESISTANCE AND STABILITY

Mechanical resistance and stability checked (Report no.: P 0087 / 17 – 680 -2)

Slovenian national building and civil engineering institute, Dimičeva ulica 12, 1000 Ljubljana



WATERTIGHTNESS

Watertightness checked (Report no.: P 0087 / 17 – 680 – 1)

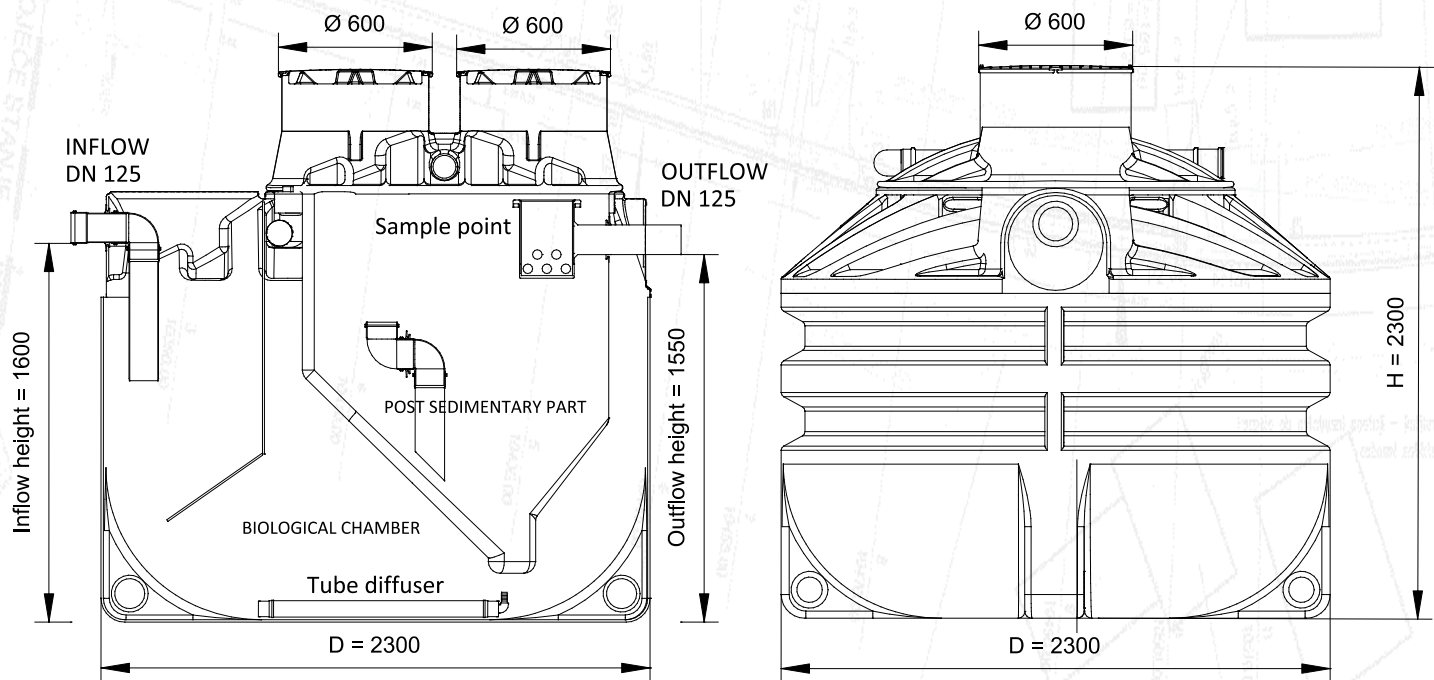
Slovenian national building and civil engineering institute, Dimičeva ulica 12, 1000 Ljubljana



WASTE WATER TREATMENT PLANT

The ROTO RoEco 5 PU is on the list of typical small municipal waste water treatment plants GZS, which are in accordance with standard SIST EN 12566 – 3 and have appropriate documentation.

The Chamber of Commerce and Industry of Slovenia, Dimičeva ulica 13, 1504 Ljubljana, Slovenia



ADDITIONAL INFORMATIONS

TANK INSTALLATION

WWTP RoEco 3 PU can be installed in a few hours. Excavate the pit, install the waste water treatment plant, and fill with the water at the same time. Connect it with the inflow and the outflow pipes (DN 110 connections). Install (3) air hoses in the protective tube and connect them to the valves of the same color in the control unit. The maximum distance between WWTP and the control unit must not exceed 10 m. After 2 weeks of continuous water supply, startup should be made. Wastewater treatment plant can be installed by Roto experts. Installation must be made according to general instructions accessed on the QR code.



Instructions for installation

[Installation of EcoBox WWTP](#)

MAINTENANCE

Maintenance, start up and service should be carried out by technical experts. Service by ROTO technical team involves condition and operation checks of the components of the waste water treatment plant, as well as testing all the functions of the device. Users of the EcoBox will be educated about maintenance and proper use. Detailed maintenance instructions, service and startup orders are accessed with the QR code.



Service order

CONTROL UNIT

RoEco WWTP is controlled by a controller built in the control box. The controller controls two electromagnetic valves, each of which has its own function:

1. Pumping the sludge from post sedimentary chamber back to mechanical part of the WWTP,
2. Aeration (air supply through difusers at the bottom of the biological chamber.

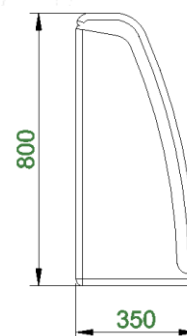
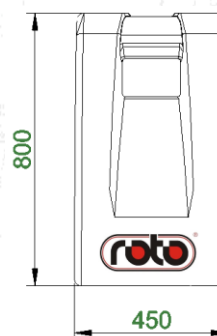
The maximum distance of the control unit/box from the treatment plant is 15 m and can be installed inside or outside of the facility. A 3 x 2.5 mm² cable must be arranged to the control box for powering the control unit.



Startup order

DIMENSION OF CONTROL BOX

PE control box height: **800 mm**
PE control box width: **450 mm**
PE control box thickness: **350 mm**



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