

water

INTELLIGENT eco SOLUTIONS



ROTO, one of Europe's leading manufacturers of rotationally molded plastic products, is a great example of a family business from Slovenia that has thrived in the global economy.

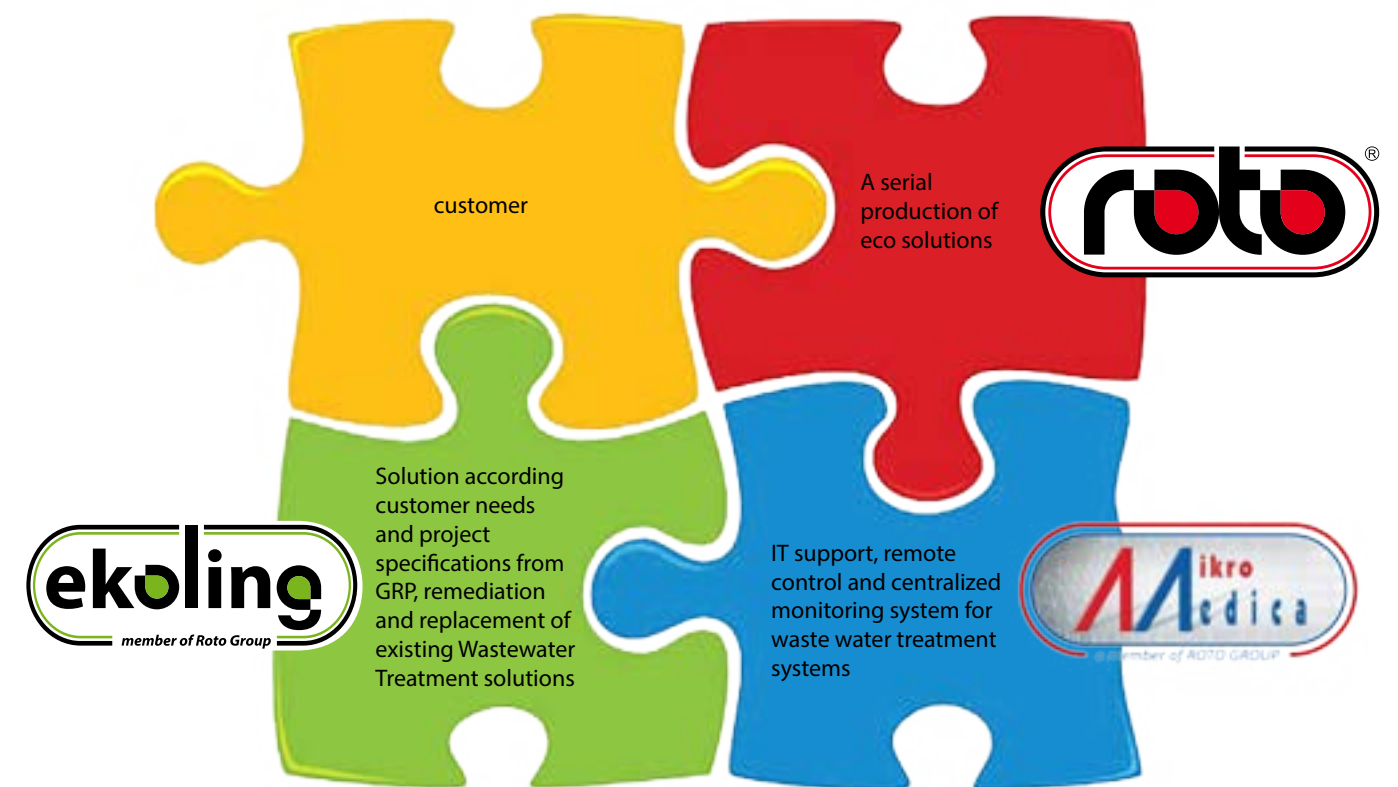
ROTO's headquarters is in the Slovenia. The company employs more than 450 people and had revenues of €40m in 2017. Production is organized in 6 locations in four countries. ROTO exports more than 70% of its products to 52 markets around the world. Run by the Pavlinjek family, the company has built a global reputation for the quality of its products. ROTO manufactures more than 4,000 different products. Many of them are made using rotational molding. Indeed, ROTO is one of the market leaders in its industry. It has been responsible for many innovations in plastic-molding technology during the last 45 years and has worked closely with universities, institutes and plastics industry associations.

The company's main production segments are products for agriculture, ecology, gardening and sport. Using plastics composites and the latest production technologies, ROTO also makes kayaks, canoes and high-performance boats.



Manufacturing as a custom molder, ROTO serves a wide variety of industry sectors, including construction, automotive, nautical, logistics, aquaculture and agricultural machinery. Its custom- molded products include fuel and water tanks for motorcycles, tractors, trucks, sailing boats and motorboats, caravans and motorhomes, and components for many different machines. ROTO works to increase its products' value by enhancing their design, intelligently using materials and modern production technologies, and ensuring a high-quality nish. The company also takes great pride in its after-sales service.

rotoECOgroup
companies with professional solutions
for ecology and protection of environment



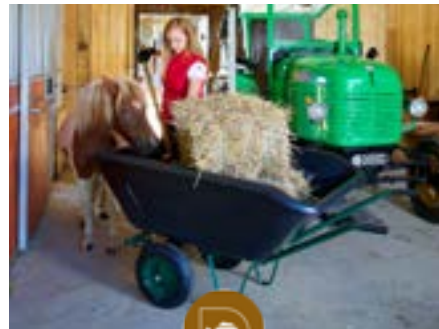
from idea to installation





WATER

water tanks, sewage water treatment plants, oil separators, septic tanks, shafts



AGRI

winebarrels, barrels for brandy, vinegar, sauerkraut containers, silo, wheelbarrows



GARDEN

planters and flower pots, garden figures, garden furniture, ponds, composters



SPORT

kayaks, canoes, boats, karting barriers



LOGISTICS

containers, pallets, road barriers, karting equipment



INDUSTRY

AGRICULTURAL MACHINERY - components for tractors and agri. machines
CARAVANING, NAUTIC, MOTO



SCADA

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WATER TANKS

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SEPTIC TANKS

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GREASE SEPARATORS

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OIL SEPARATORS

64

SHAFTS

77

PUMPING STATIONS

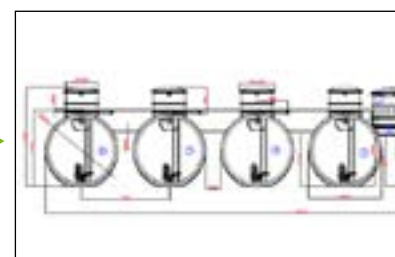
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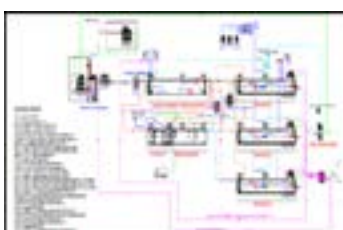
Check the existing input data



Visit the construction site



Searching the optimal technical solution



Project management, obtaining the required building approvals (construction licence, operating licence)



Installation of products and hand over the required technical documentation

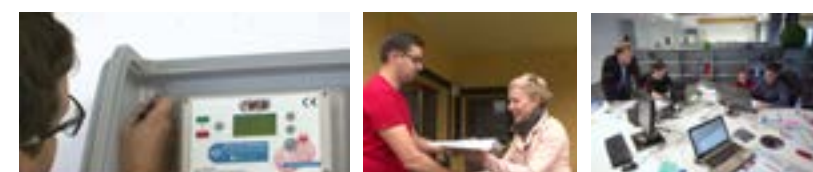


Operation and maintenance

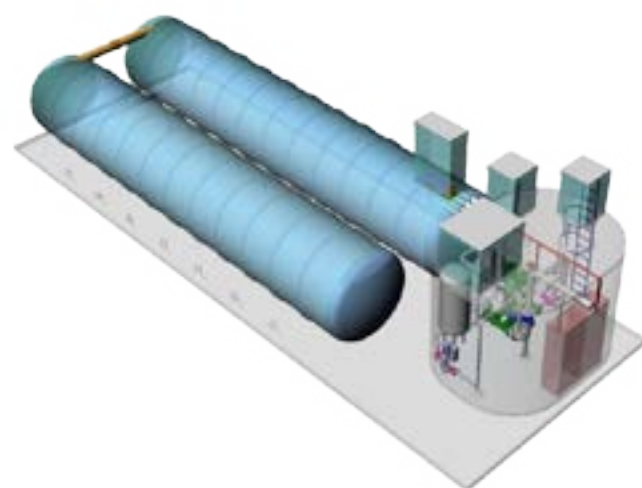


Roto sales engineers help with technical support from idea to installation to the:

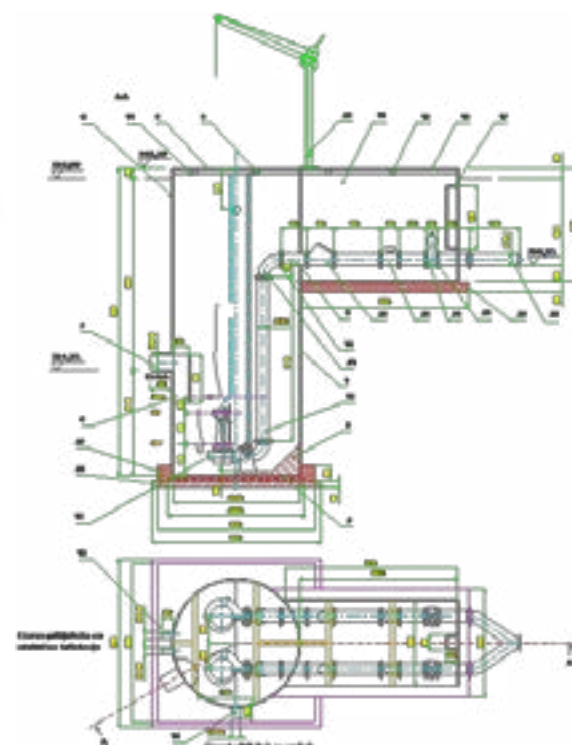
- Construction companies
- Installation companies
- Communities
- Architects
- Project managers
- Distributors
- End customers



Project, solution, design and engineering



ROTO offers the entire water management value chain by providing industry-leading wastewater treatment solutions to customers around the globe.



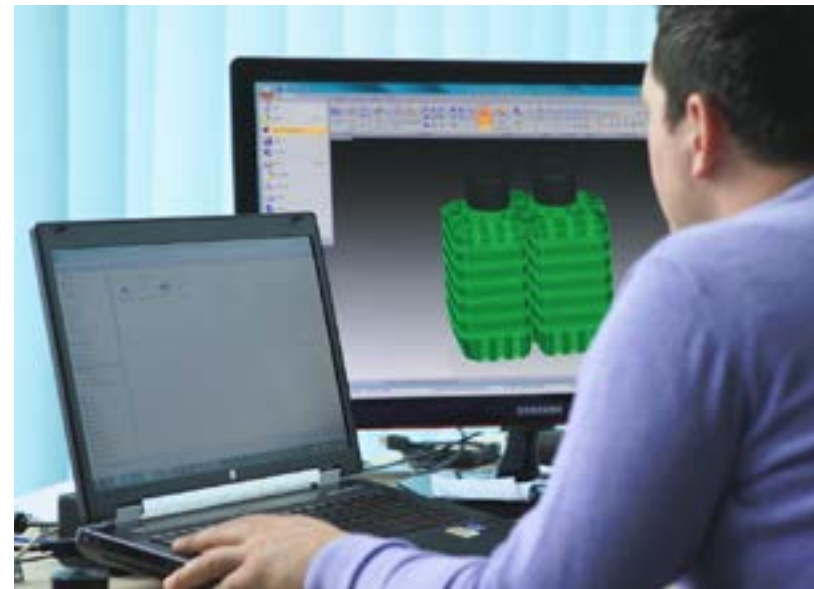
Smart water management solutions include services throughout the entire lifecycle from project development, design and engineering, system components procurement, project construction management through operations and maintenance. We prepare all the project documentation for technology, construction and electrical works.

Installation and start up

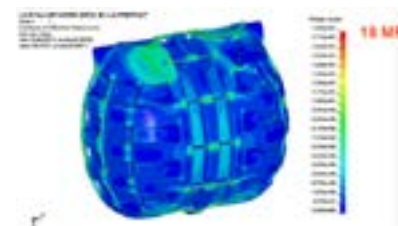


Maintenance, spare parts and other services

Product design department: 3D drawings, computer simulations and analysis



ROTO offers a complete range of services from 3D computer-aided design (CAD) through to tooling project management as 3D printing of prototypes and sand molds for AI-casting or CNC milling. ROTO is also very keen on innovation. It employs 20 people at its own research and development department, which invents over 150 new products a year.



Product adaptation Customized and individual solutions



- Construction drawings
- Building information modeling
- Technical reports
- Construction site communication
- Adaptation of products in the factory or on construction site according to the project



Prototype and tool manufacturing



Our work begins with listening to the customers requirements. Roto can offer a new concept or materials that will help future proof an idea. We have a design team in-house who will walk you through each stage very carefully, show you designs and even supply prototypes to test and show your customer base.



Roto has a 3D printer capable of producing prototypes of 2000 x 1000 mm in one block. We can go from design to sample within days at a minimum cost to the customer. Once the design and sample has been approved, we can start work on the molding.

Manufacturing the biggest polyethylene products



The Rotomoulding process allows us to produce monolith tanks with no welding points, which means you have no weak points. Roto has 39 rotational moulding machines and one of the biggest to produce 25.000 L tank in one part.



Laboratory



- Own laboratory wastewater test and reports (BOD, COD, Nitrogen etc)
- Microscopic analysis of microbiological characteristics of wastewater



WASTEWATER ANALYSIS REPORT									
Client: [Name] Address: [Address] City: [City] Country: [Country]									
Analysis Date: [Date] Analysis Time: [Time] Analyst: [Name]									
Parameter	Unit	Value	Unit	Value	Unit	Value	Unit	Value	Unit
BOD ₅	mg/l	120	mg/l	150	mg/l	180	mg/l	200	mg/l
COD	mg/l	250	mg/l	300	mg/l	350	mg/l	400	mg/l
Nitrogen	mg/l	10	mg/l	15	mg/l	20	mg/l	25	mg/l
pH		7.2		7.5		7.8		8.0	
Temperature	°C	20	°C	22	°C	24	°C	26	°C
TSS	mg/l	50	mg/l	60	mg/l	70	mg/l	80	mg/l
Ammonia	mg/l	5	mg/l	6	mg/l	7	mg/l	8	mg/l
Phosphate	mg/l	2	mg/l	3	mg/l	4	mg/l	5	mg/l
Chloride	mg/l	100	mg/l	120	mg/l	140	mg/l	160	mg/l
Sulfate	mg/l	80	mg/l	90	mg/l	100	mg/l	110	mg/l
Calcium	mg/l	150	mg/l	160	mg/l	170	mg/l	180	mg/l
Magnesium	mg/l	50	mg/l	55	mg/l	60	mg/l	65	mg/l
Iron	mg/l	10	mg/l	12	mg/l	14	mg/l	16	mg/l
Copper	mg/l	0.5	mg/l	0.6	mg/l	0.7	mg/l	0.8	mg/l
Zinc	mg/l	1	mg/l	1.2	mg/l	1.4	mg/l	1.6	mg/l
Lead	mg/l	0.1	mg/l	0.12	mg/l	0.14	mg/l	0.16	mg/l
Mercury	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Cadmium	mg/l	0.005	mg/l	0.006	mg/l	0.007	mg/l	0.008	mg/l
Chromium	mg/l	0.2	mg/l	0.22	mg/l	0.24	mg/l	0.26	mg/l
Manganese	mg/l	0.5	mg/l	0.55	mg/l	0.6	mg/l	0.65	mg/l
Nickel	mg/l	0.1	mg/l	0.12	mg/l	0.14	mg/l	0.16	mg/l
Cobalt	mg/l	0.05	mg/l	0.06	mg/l	0.07	mg/l	0.08	mg/l
Molybdenum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Selenium	mg/l	0.005	mg/l	0.006	mg/l	0.007	mg/l	0.008	mg/l
Fluoride	mg/l	10	mg/l	12	mg/l	14	mg/l	16	mg/l
Boron	mg/l	0.5	mg/l	0.6	mg/l	0.7	mg/l	0.8	mg/l
Silica	mg/l	100	mg/l	120	mg/l	140	mg/l	160	mg/l
Aluminum	mg/l	50	mg/l	60	mg/l	70	mg/l	80	mg/l
Chlorine	mg/l	100	mg/l	120	mg/l	140	mg/l	160	mg/l
Bromine	mg/l	50	mg/l	60	mg/l	70	mg/l	80	mg/l
Iodine	mg/l	10	mg/l	12	mg/l	14	mg/l	16	mg/l
Silver	mg/l	0.1	mg/l	0.12	mg/l	0.14	mg/l	0.16	mg/l
Gold	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Platinum	mg/l	0.005	mg/l	0.006	mg/l	0.007	mg/l	0.008	mg/l
Palladium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Antimony	mg/l	0.005	mg/l	0.006	mg/l	0.007	mg/l	0.008	mg/l
Vanadium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Chromium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Manganese	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Nickel	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Cobalt	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Molybdenum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Selenium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Fluoride	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Boron	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Silica	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Aluminum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Chlorine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Bromine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Iodine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Silver	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Gold	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Platinum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Palladium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Antimony	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Vanadium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Chromium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Manganese	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Nickel	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
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Silica	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Aluminum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Chlorine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
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Silver	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Gold	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Platinum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Palladium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Antimony	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Vanadium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Chromium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Manganese	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Nickel	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
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Molybdenum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Selenium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
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Bromine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
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Chlorine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Bromine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Iodine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Silver	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
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Iodine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Silver	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Gold	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Platinum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Palladium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Antimony	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Vanadium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Chromium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Manganese	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Nickel	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Cobalt	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Molybdenum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Selenium	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Fluoride	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Boron	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Silica	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Aluminum	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Chlorine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Bromine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Iodine	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Silver	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	mg/l
Gold	mg/l	0.01	mg/l	0.012	mg/l	0.014	mg/l	0.016	



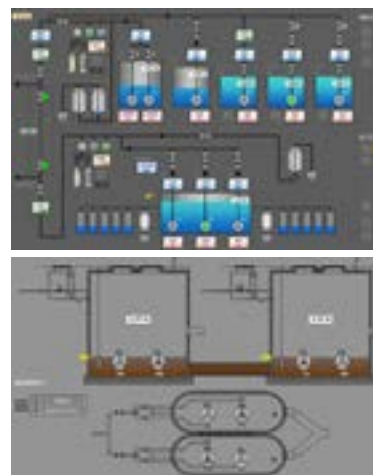
WASTE WATER TREATMENT PLANT

Designing, automatisisation, manufacturing and service waste water treatment plant from 5 PU to 150.000 PU



SEWAGE AND WATER DISTRIBUTION SYSTEMS

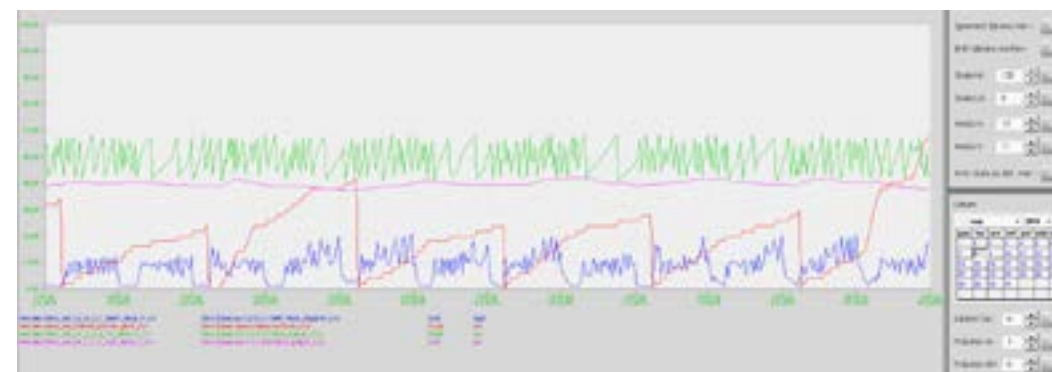
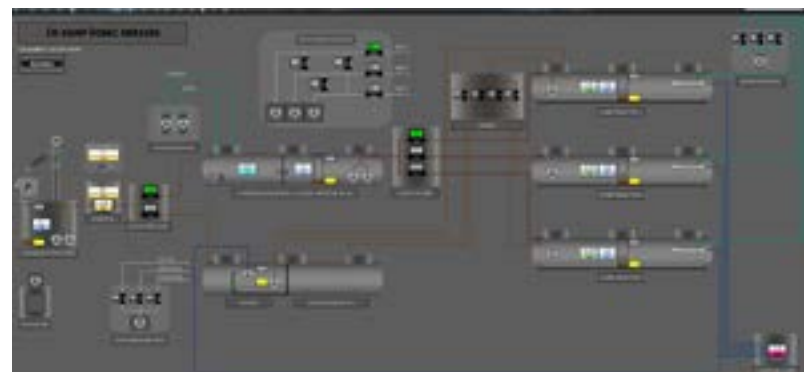
Designing, automatisisation, manufacturing and service sewage and water distribution objects



SCADA system is excellent solution for the monitoring and remote control of water and wastewater facility operations. The implementation of the SCADA and a telemetry system has a positive impact on the operations, maintenance, process improvement and savings for the owner of WWTP.

REFERENCES:

- Sewer systems (vacuum, dry and standard pumping stations),
- waste water treatment plants (SBR, MBR, MBBR,...),
- sludge treatment (stabilization, dehydration,...),
- water supply systems (water collectors, irrigation systems,...).



SCADA APPLICATION REMOTE CONTROL OF WASTE WATER TREATMENT PLANT

SCADA SUPPORTS M2M COMMUNICATIONS FOR DATA TRANSFERING:

- Operating mode,
- SCADA control center (facilities can be integrated in the WEB SCADA control),
- Possibility to set up new center or integration of existing control center, which supports standard communication protocols for communication with dislocated facilities,
- Remote control and acces can be reach via internet, smart phones, Ipads, and other mobile devices,
- Communication between different locations.

ADVANTAGES OF CONTROLLING:

- Adaptability for clients requirements and the type of sewage water treatment plant,
- Allows remote control with changing parameters (ipad, iphone, smart phones,...).
- integrated PLC-s with a touch sensitive color LCD screen,
- option to change parameters of sewage water treatment plant on panel and via remote device.

SCADA APPLICATIONS

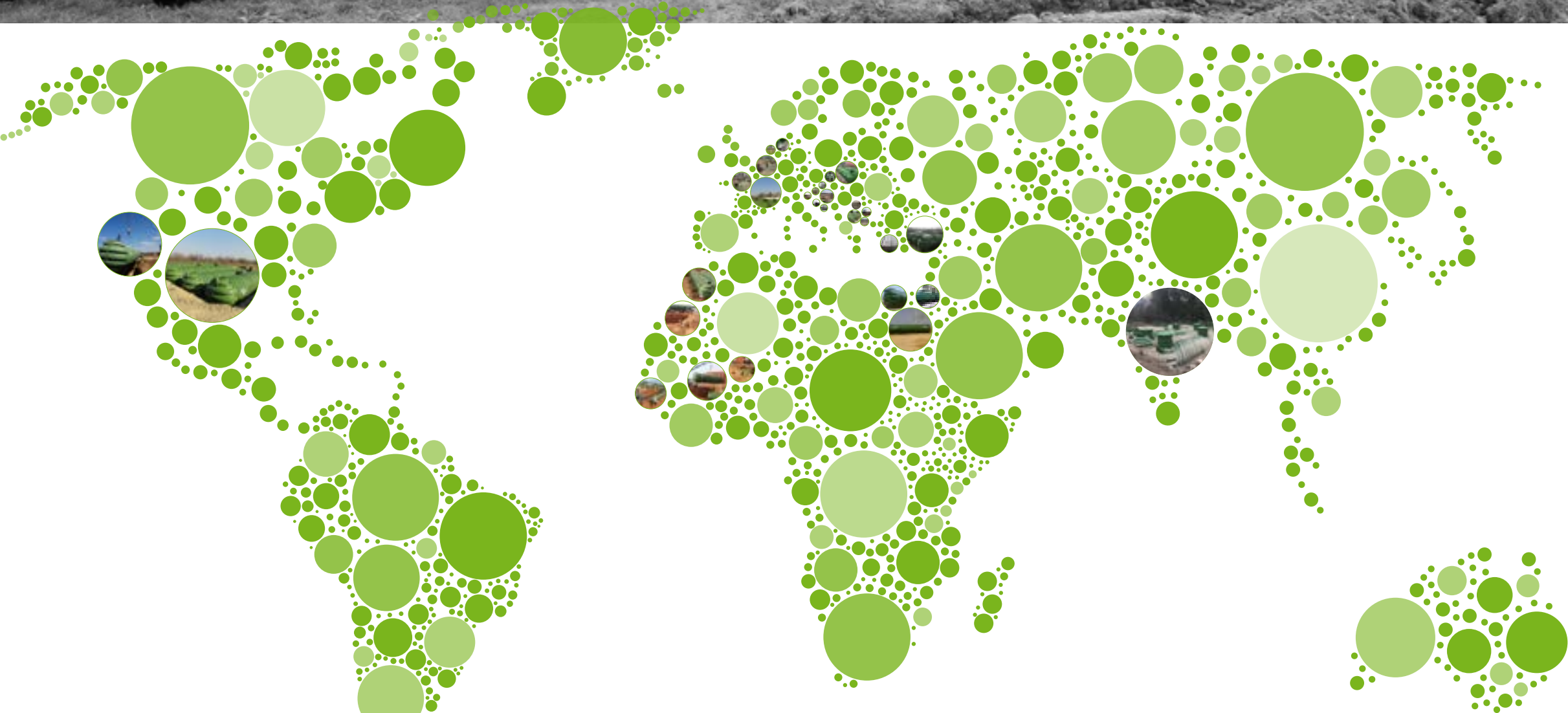
- Reporting of errors on your mobile device,
- Possibility to check history of errors,
- Saving of information on SD card.

ADVANTAGES OF SCADA APPLICATIONS:

- Visual display of current process and history of operating,
- on/off possibility of all devices from SCADA,
- remote settings of all parameters on waste water purifying plant,
- automatic creation of reports,
- remote control for maintenance stuff,
- alarm filtering by day, user name and type of alarm (for later analysis and system debugging),
- review of working hours, number of starts, consumption, service intervals.



numbers of years of experience in manufacturing of eco solutions



14

15



COVER

PE, DN600, up to 200 kg
PP, DN600, up to 600 kg
Cast iron, DN600, up to 1500 kg

TELESCOPIC EXTENSION

It's designed like a screw so we can adjust the height of tank during installation. Up to 500 mm.

Seal

Seal

OUT-FLOW

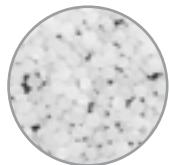
INFLOW
up to
DN160

16

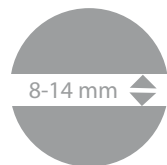
easy to install
because of its
flat bottom

reinforced
rib

Basic equipment: telescopic extension, PE cover



material:
polyethylen



wall thickness
8-14 mm



monolit
100% waterproof



made of spec.
polyethilen for
drinking water
storage



polyethylen -
recycable
after use



excellent statics



HORIZONTAL

VERTICAL

DRINKING WATER

FREESTANDING

WATER TANKS



Rainwater tanks

Rainwater harvesting systems for domestic applications

Sustainable, reliable, affordable

Why to harvest a water?

18



Reducing the consumption of drinking water.



In most buildings rainwater is flows away while expensive purified water is used for sanitar use.



Roto rainwater harvesting systems can reduce a domestic house's reliance on mains water by up to 50% and in turn lowering the household water bill.



Sustainability, drainage and planning



Rainwater Harvesting can form a key integral part of a well designed sustainable drainage scheme and can assist where the mains water supply (and drainage infrastructure) simply cannot support increased demand.



Environmental issues are becoming increasingly important and there is a growing public awareness of the contribution that good building design can make to reducing pollution and improving the environment.

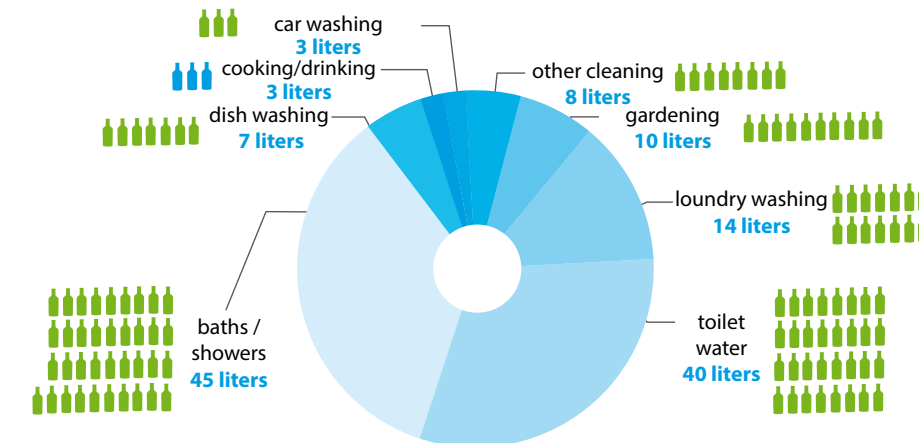
Save up to 50%. With rainwater tank you can reduce water consumption in domestic applications by up to 50%

- ✓ Continuous water supply in times when mains water is taken for granted.
- ✓ Alternatively if there is a lack of rainfall the mains water will supply the applications.
- ✓ Technical advice & guidance support available from experienced technical sales engineers
- ✓ The System that Pays for Itself - Money saved through reduced water bills means ROTO rainwater harvesting system can pay back its purchase costs.



98% of our water requirements need not be covered by drinking water

The average daily water consumption is 130 litres per person.



Rainwater can be used for all household requirements except as drinking water or in food preparation. The above figures show that a household will normally use only 2% of drinking water for actual drinking or cooking, which means rainwater can be used for all other purposes. Rainwater can be used for gardening, laundry washing, dish washing, car washing, as toilet water, etc.

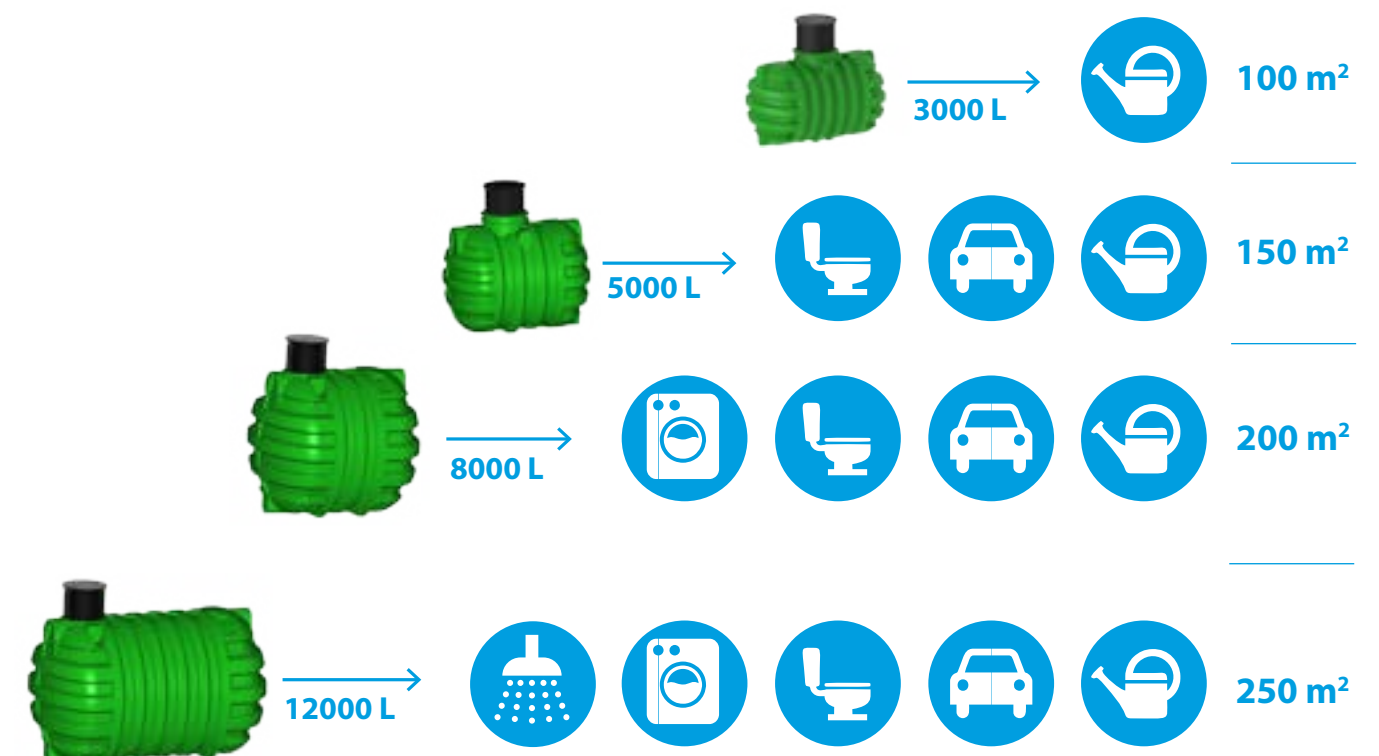
Steps to selecting your system

1) ROOF AREA – determine the usable surface area on your builing's roof

2) Storage – select the size of the storage tank

3) CLEAN AND PUMP – choose your system for filtering and water distribution

Select the size of the rainwater tank:



19



Roterra water tank

2.200 - 3.000 L

• Tank is easy to install, has excellent statics and can be buried underground.

• Plastic **cover** has a seal which makes the tank waterproof. Cover is fixed with four stainless steel screws. Standard cover has loading capacity up to 0,2 kN/m².

• Inflow and outflow opening sizes are prepared according to customer requirements for water distribution or PVC hoses from DN50 to DN 400 for influx, outflux and tank overflows).



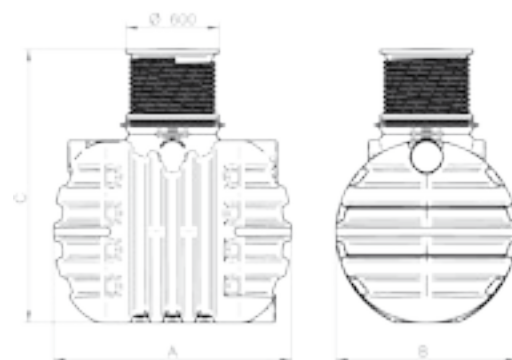
INSTALLATION
Easy to install because of its flat bottom. Tank is constructed with great statics.



INFLOW/OUTFLOW
Inflow and outflow pipes can be installed (up to DN160 mm).



TELESCOPIC EXTENSION
can adjust the height of tank during installation.
(size: Ø600 x 500 mm)



Volume [L]	Code	Dimension A x B x C [mm]	Cover [mm]	Weight [kg]
2.200	7100067160	1840 x 1400 x 1600-2100	Ø600	100
2.600	7100067180	2150 x 1400 x 1600-2100	Ø600	115
3.000	7100067170	2400 x 1400 x 1600-2100	Ø600	130



2.200 L



2.600 L



3.000 L



Roterra water tank

3.500 - 6.000 L

• Tank is easy to install, has excellent statics and can be buried underground.

• Plastic **cover** has a seal which makes the tank waterproof. Cover is fixed with four stainless steel screws. Standard cover has loading capacity up to 0,2 kN/m².

• Inflow and outflow opening sizes are prepared according to customer requirements (for water distribution or PVC hoses from DN50 to DN 400 for inflow, outflow and tank overflows).



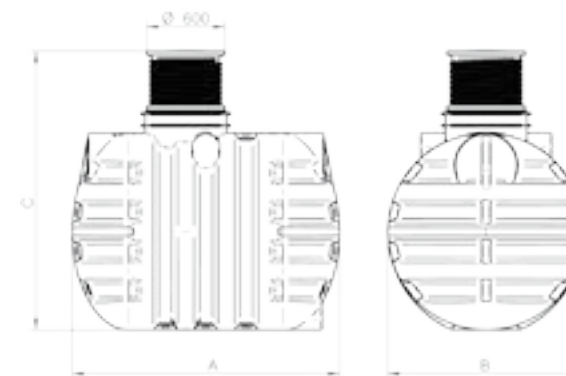
TELESCOPIC EXTENSION
can adjust the height of tank during installation.
(size: Ø600 x 500 mm)



INFLOW/OUTFLOW
Inflow and outflow pipes can be installed (up to DN160 mm).



INSTALLATION
Easy to install because of its flat bottom. Tank is constructed with great statics.



Volume [L]	Code	Dimension A x B x C [mm]	Cover [mm]	Weight [kg]
3.500	7100067120	2080 x 1800 x 2050-2550	600	165
5.000	7100067130	2450 x 1800 x 2050-2550	600	195
6.000	7100067140	2820 x 1800 x 2050-2550	600	235



3.500 L



5.000 L



6.000 L



Roterra water tank

8.000 - 16.000L

• Tank is easy to install, has excellent statics and can be buried underground.

• Plastic **cover** has a seal which makes the tank waterproof. Cover is fixed with four stainless steel screws. Standard cover has loading capacity up to 0,2 kN/m².

• Inflow and outflow opening sizes are prepared according to customer requirements (for water distribution or PVC hoses from DN50 to DN 400 for inflow, outflow and tank overflows).



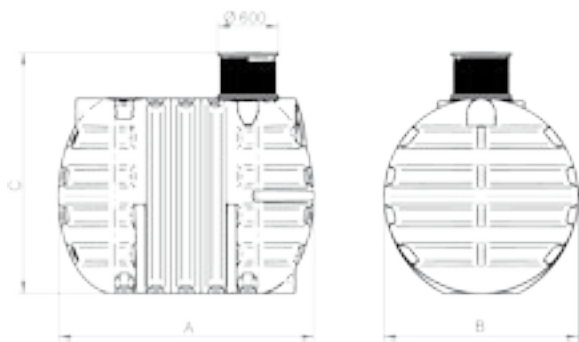
TELESCOPIC EXTENSION
can adjust the height of tank during installation.
(size: Ø600 x 500 mm)



INFLOW/OUTFLOW
Inflow and outflow pipes can be installed (up to DN160 mm).



INSTALLATION
Easy to install because of its flat bottom. Tank is constructed with great statics.



Volume [L]	Code	Dimension A x B x C [mm]	Cover [mm]	Weight [kg]
8.000	7100062540	2680 x 2300 x 2350-2850	Ø600	275
10.000	7100069030	3040 x 2300 x 2350-2850	Ø600	315
12.000	7100062500	3760 x 2300 x 2350-2850	Ø600	365
16.000	7100065770	4840 x 2300 x 2350-2850	Ø600	465



8.000 L

10.000 L

12.000 L

16.000 L



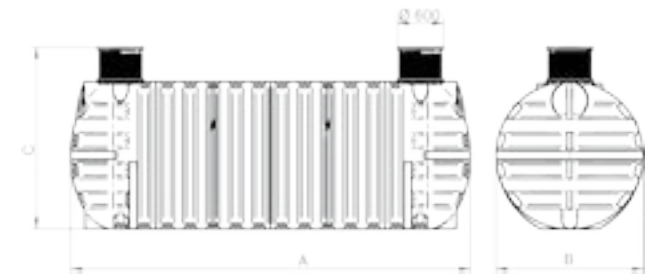
Roterra water tank

22.000 - 35.000L



REINFORCED RIB
for unloading

Volume [L]	Code	Dimension A x B x C [mm]	Cover [mm]	Weight [kg]
22.000	7100062570	6280 x 2300 x 2350-2850	2x Ø600	820
25.000	71000862570	7370 x 2300 x 2350-2850	2x Ø600	1040
30.000	7100062350	8450 x 2300 x 2350-2850	2x Ø600	1080
35.000	71000862370	9890 x 2300 x 2350-2850	2x Ø600	1340



25.000 L

30.000 L

35.000 L



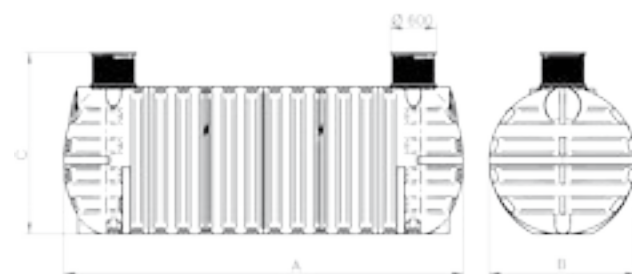
Roterra water tank

40.000 - 50.000L



REINFORCED RIB
for unloading

Volume [L]	Code	Dimension A x B x C [mm]	Cover [mm]	Weight [kg]
40.000	7100062370	10970 x 2300 x 2350-2850	2x Ø600	1380
45.000	7100862420	12410 x 2300 x 2350-2850	2x Ø600	1640
50.000	7100062420	13490 x 2300 x 2350-2850	2x Ø600	1680



40.000 L

45.000 L

50.000 L



Rocko

COVER

PE, DN600, with seal and system of locking
PE, DN800, with seal and screws - optional

SEAL

from DN50 up
to DN160

RING

EXTENSION

It can be cut off and
adjusted to height

INFLOW

up to
DN160

OUTFLOW

up to DN160

Basic equipment:
walkable plastic cover

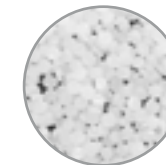
HOLE FOR
ANCORING



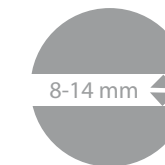
freestanding
tank



underground
tank



material:
polyethylen



wall thickness
8-14 mm



polyethylen -
recyclable
after use



excellent statics





Rocko water tank

Ø1300



**COVER DN600
WITH PE RING**
Is designed like a screw so we can adjust the height of tank during installation.



COVER DN600
The cover is fixed with four stainless steel screws.



COVER DN800
Is fixed with four stainless steel screws.



INFLOW/OUTFLOW
Inflow and outflow pipes can be installed on two places (up to DN160 mm).



INSTALLATION
Easy to install because of its flat bottom. Tank is constructed with great statics.

Volume [L]	Code	Dimension A x H [mm]	Cover [mm]	Weight [kg]
1.200	7100057620	Ø1300 x 1550	Ø600/800	50
1.500	7100057630	Ø1300 x 1800	Ø600/800	65
1.700	7100057810	Ø1300 x 2050	Ø600/800	80
2.000	7100057640	Ø1300 x 2300	Ø600/800	95
3.000	7100057860	Ø1300 x 3300	Ø600/800	160



1.200 L



1.500 L



1.700 L



2.000 L



3.000 L



Rocko water tank

Ø1500



**COVER DN600
WITH PE RING**
Is designed like a screw so we can adjust the height of tank during installation.



COVER DN600
The cover is fixed with four stainless steel screws.



COVER DN800
Is fixed with four stainless steel screws.

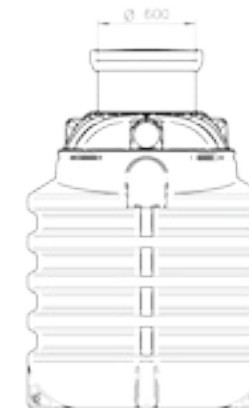


INFLOW/OUTFLOW
Inflow and outflow pipes can be installed on two places (up to DN160 mm).



INSTALLATION
Easy to install because of its flat bottom. Tank is constructed with great statics.

Volume [L]	Code	Dimension A x H [mm]	Cover [mm]	Weight [kg]
2.000	7100067450	Ø1500 x 2000	Ø600/800	79
2.350	7100067460	Ø1500 x 2250	Ø600/800	90
2.700	7100067470	Ø1500 x 2500	Ø600/800	101



2.000 L



2.350 L



2.700 L



Rocko

water tank

Ø1800



COVER DN600 WITH PE RING
Is designed like a screw so we can adjust the height of tank during installation.

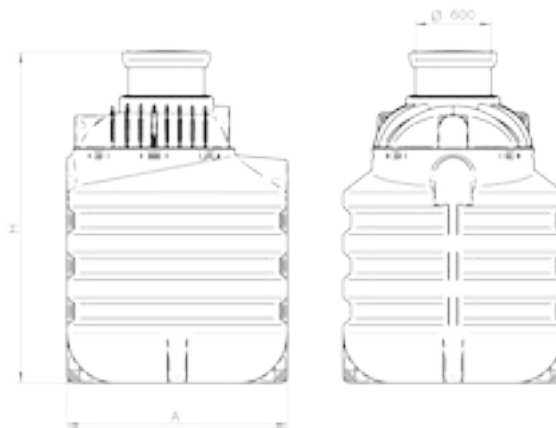


COVER DN600
The cover is fixed with four stainless steel screws.



COVER DN800
Is fixed with four stainless steel screws.

Volume [L]	Code	Dimension A x H [mm]	Cover [mm]	Weight [kg]
3.200	7100067260	Ø1800 x 2350	Ø600/800	136
4.000	7100067270	Ø1800 x 2700	Ø600/800	155
5.000	7100067280	Ø1800 x 3100	Ø600/800	182



3.200 L

4.000 L

5.000 L



Rocko

water tank

Ø2300



- Tank is easy to install, has excellent statics and can be used as an above or underground tank. Its shape allows installation on rocky surface.



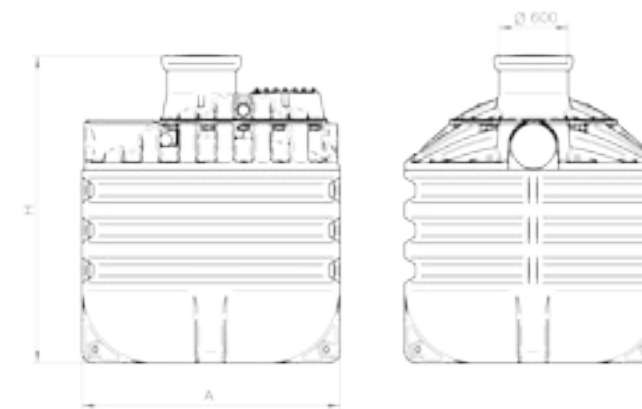
COVER DN600



INFLOW/OUTFLOW till DN400



ANCHORING



Volume [L]	Code	Dimension A x H [mm]	Cover [mm]	Weight [kg]
6.000	7100067340	Ø2300 x 2400	1 or 2 x Ø600	212
7.500	7100067350	Ø2300 x 2750	1 or 2 x Ø600	243
8.700	7100067360	Ø2300 x 3100	1 or 2 x Ø600	274
10.000	7100067370	Ø2300 x 3500	1 or 2 x Ø600	306



6.000 L

7.500 L

8.700 L

10.000 L



Rocko

water tank

Ø2310



TELESCOPIC EXTENSION

Is designed like a screw so we can adjust the height of tank during installation.



INFLOW/OUTFLOW

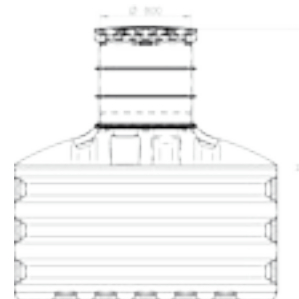
Inflow and outflow pipes can be installed (up to DN160 mm).



INSTALLATION

Easy to install because of its flat bottom. Tank is constructed with great statics.

Volume [L]	Code	Dimension A x H [mm]	Cover [mm]	Weight [kg]
3.500	7100067030	Ø2310 x 1300-2000	Ø800	177
5.000	7100067070	Ø2310 x 1650-2350	Ø800	200
6.500	7100067190	Ø2310 x 2000-2700	Ø800	260
7.500	7100067010	Ø2310 x 2350-3050	Ø800	320
10.000	7100067000	Ø2310 x 3050-3750	Ø800	400



3.500 L



5.000 L



6.500 L



7.500 L

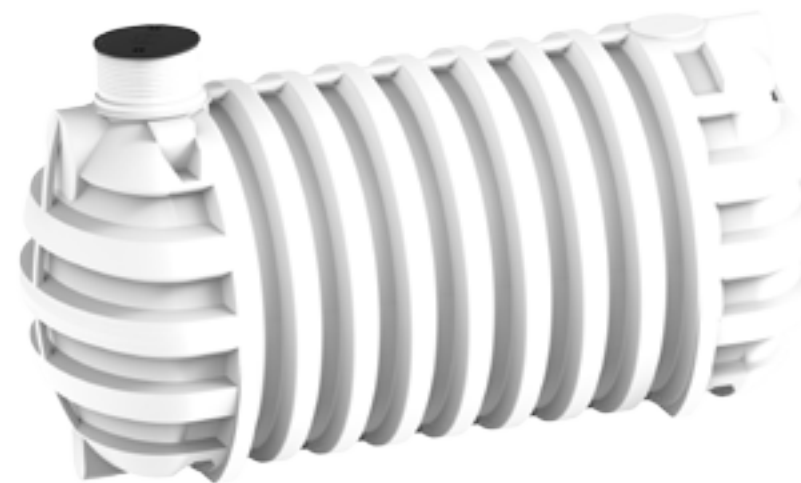


10.000 L



Rodrink

tank for drinking water



- integrated extension
- flat cover with loading capacity up to 200 kg
- cover has seal which makes the tank waterproof
- cover is fixed with four stainless steel screws



INTEGRATED EXTENSION



INFLOW/OUTFLOW

inflow and outflow opening sizes are adjustable (up to DN160 mm)



INSTALLATION

Tank is easy to install, because of its flat bottom.



for drinking water

Volume [L]	Code	Dimension A x B x C [mm]	Weight [kg]
2.200 L	7100067161	1840 x 1400 x 1600-2100	100
2.600 L	7100067181	2150 x 1400 x 1600-2100	115
3.000 L	7100067171	2400 x 1400 x 1600-2100	130
3.500 L	7100090401	2080 x 1800 x 2050-2550	165
5.000 L	7100090411	2450 x 1800 x 2050-2550	195
6.000 L	7100090421	2820 x 1800 x 2050-2550	235
8.000 L	7100062541	2680 x 2300 x 2350-2850	275
10.000 L	7100069031	3040 x 2300 x 2350-2850	315
12.000 L	7100062501	3760 x 2300 x 2350-2850	365

Volume [L]	Code	Dimension A x B x C [mm]	Weight [kg]
16.000 L	7100065771	4840 x 2300 x 2350-2850	465
22.000 L	7100062571	6280 x 2300 x 2350-2850	820
25.000 L	7100862571	7370 x 2300 x 2350-2850	1040
30.000 L	7100062351	8450 x 2300 x 2350-2850	1080
35.000 L	7100862371	9890 x 2300 x 2350-2850	1340
40.000 L	7100062371	10970 x 2300 x 2350-2850	1380
45.000 L	7100862421	12410 x 2300 x 2350-2850	1640
50.000 L	7100062421	13490 x 2300 x 2350-2850	1680



5.000 L



8.000 L



12.000 L



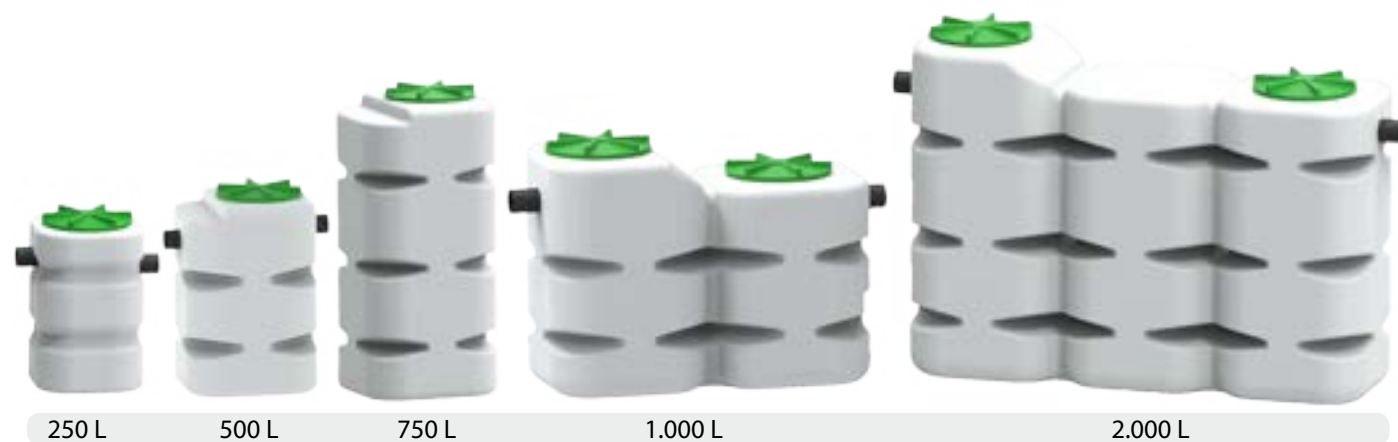
RoQuadro water tank

250 - 2.000L

- used for storage or transport of liquids
- in/outdoor use/ above ground



Volume [L]	Code	Dimension A x B x C [mm]	Cover [mm]	Weight [kg]
250	7104103260	600 x 600 x 928	Ø300	12
500	7104104060	760 x 760 x 1100	Ø300	23
750	7104106060	760 x 760 x 1600	Ø300	30
1.000	7104107660	1520 x 760 x 1100	Ø300	45
2.000	7104109460	2225 x 760 x 1600	Ø300	80



references



Village



Tourist farm



Camp



Ski resort



Residential house



Hotel



Logistic center



Cottage



Shopping center



Military base



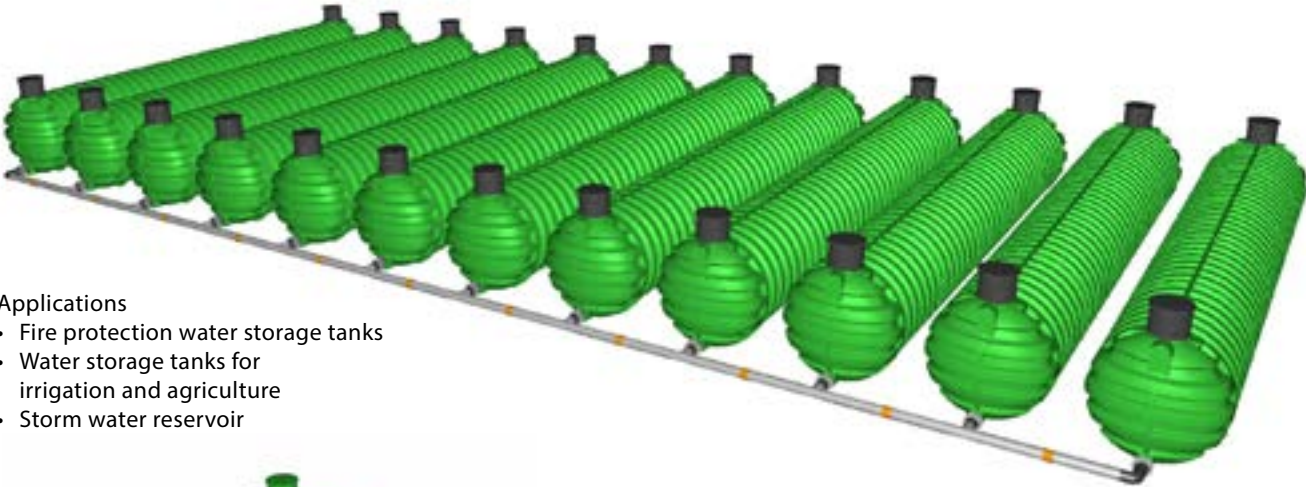
Car wash

Additional equipment

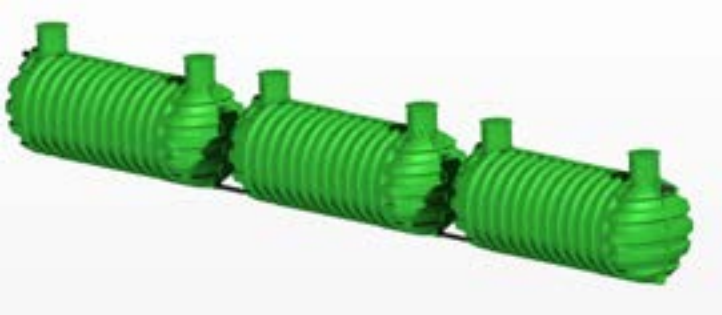
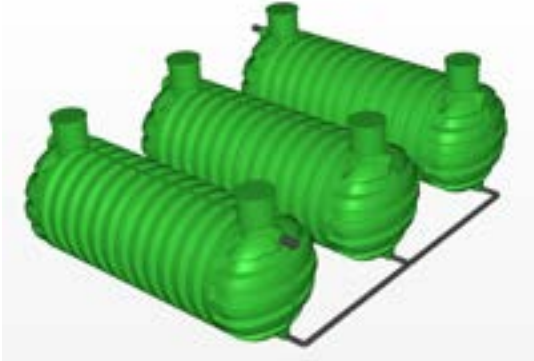


34

Connecting tanks



- Applications
- Fire protection water storage tanks
 - Water storage tanks for irrigation and agriculture
 - Storm water reservoir



Rainwater use for gardening and haushold



Application

The garden set comprises a high-quality dip pump fitted with a pressure switch (water is under pressure as the tap is opened/user is connected). It is suitable for gardening purposes, car washing and basic domestic application.

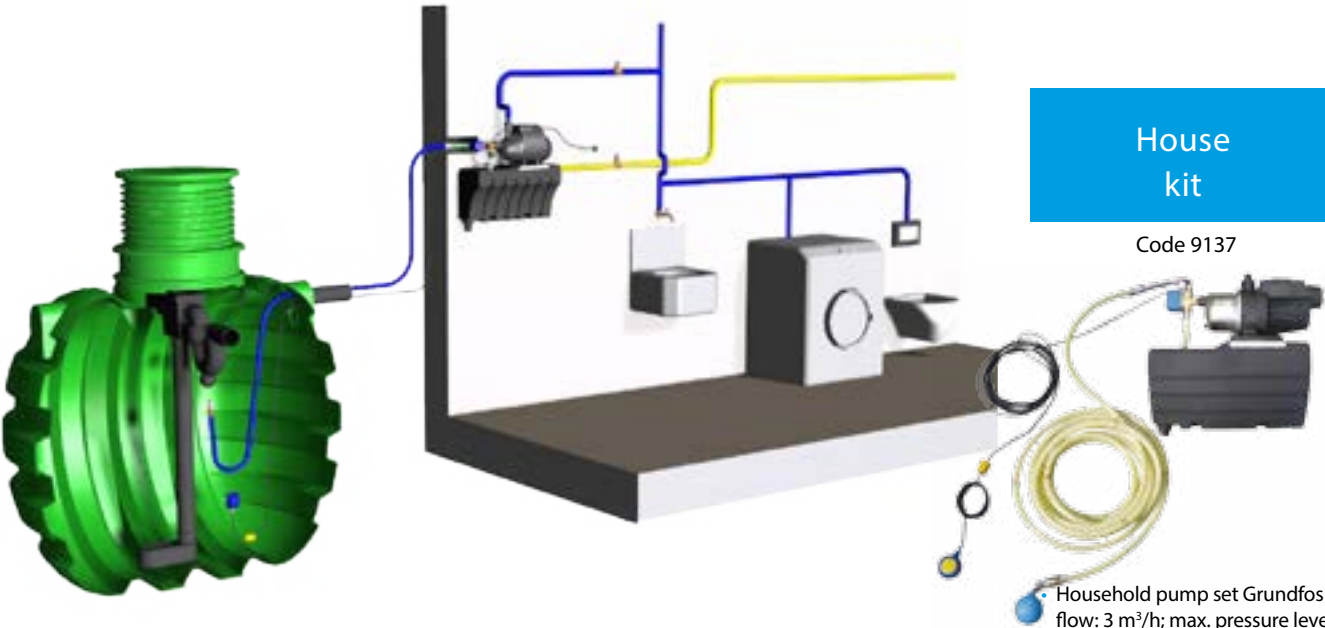
Garden kit

Code 6266



- A small garden shaft to which the watering pipe is connected.
- Dip pump: DAB Diversion 1000, fitted with a pressure switch (max. flow: 5.7 m³/h; max. pumping level: 36 m; input power: 900 W; weight: 11 kg, 7-metre electric cable).
- Pressure pipe placed between the pump and the shaft.

35



Application

The fully automated system ensures rainwater in the house and garden, as toilet water, for the dishwasher and washing machine, for car washing, etc.

Operation

This is a pre-prepared and built-in pump system ready to be connected to the building. A magnetic valve alternates the water source from the rainwater tank to the water distribution system if necessary (e.g. when the tank runs out of water), always giving priority to the tank water. The system is upgraded with a provisional tank used for the water distribution system as the latter is prohibited from being directly burdened with pressure pumps. The pump is cooled by means of cold water, which cannot be heard in other rooms.

House kit

Code 9137



- Household pump set Grundfos flow: 3 m³/h; max. pressure level: 15 m, max. service pressure: 7.5 bar; input power: 660 W
- Storage tank (used for system security purposes, so the water distribution network is not burdened).
- A float switch fitted with a 15-metre cable.
- A 15-metre vacuuming tube with a float bleed.
- A stainless filter and non-return valve.
- Mixing valve.

Additional equipment for tanks



Additional extension



- A telescopic extension allows adjustment of height according to excavation depth.

code	dimensions (w x h)
6358	Ø400 x 200
6357	Ø600 x 200
5760	Ø600 x 250
6702	Ø800 x 750
1311070	Ø600 x 600
1311069	Ø600 x 600

Rubber washer



code	dimensions (w x h)
1280302	Ø 50
1280304	Ø 110
1280305	Ø 125
1280323	Ø 160

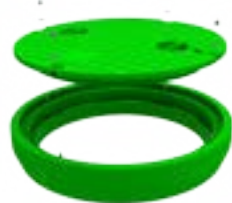
Ultrasonic Electronic Gauge



- to measure the level of water in the tank
- mounted transmitter unit and a plug in receiver unit
- LCD display

code	dimensions (w x h)
7095	Ø250 x 600

Ring



- Waterproof walkable cover with rubber washer
- Cover has loading capacity up to 200 kg and is according standard DIN 1989

code	dimensions (w x h)
52019	Ø600 x 50

Walk over cover



- PP walkable cover with loading capacity up to 600 kg
- With rubber washer on inner side of cover

code	dimensions (w x h)
1280272	Ø600 x 30

Drive over cover



- Cast iron cover with loading capacity up to 1500 kg
- With rubber washer

code	dimensions (w x h)
1280315	Ø600 x 30

Filters



Rain gutter shaft



- Linking element between the rain gutter and inflow pipes leading to the tank
- Outflow DN 110, 125, 160

code	dimension (mm)
1 7095	Ø250 x 600
2 52008	Ø250 x 600

Shaft filter



- It cleans water before it flows into the tank.
- A stainless grid is inserted in the plastic shaft to extract leaves and twigs from water before it flows
- The filter is closed with a plastic cover.

code	dimensions (w x h)
6591	Ø400 x 800
6597	Ø400 x 800 with filter
6596	Ø400 x 800 without filter
6592	Ø600 x 800 with filter
6595	Ø600 x 800 without filter

Rainwater fine filter



- fine filter with inflow 2Xdn110 and outflow DN110 and DN 125
- cleaning water discharged from the roof and from gutters.
- the filter is self-cleaning

code	dimensions (w x h)
9280	Ø400 x 450
6618	fine filter - duo

Filter system for clean water



- Water station provides good purified water, microbiologically safe and clean.
- Installed at the entrance to the facility, such as a central system for filtration and UV disinfection.
- The water source can be the water system or rain water.

Filter system for sanitary water



- water filtration system for cleaning of water, used in the household,
- cleans mechanical particles, chlorine, taste and odor of water.
- installed device for UV

Filter set



- Inflow/outflow pipe DN110 m
- Self-cleaning filter
- Overflow siphon
- Slow inflow
- Installation

code	dimensions (w x h)
6248	110 x 160 mm



ROTO waste water treatment plant is the right decision

97%

1. HIGH PURIFICATION CAPACITY

The ROTO waste water treatment plants operate safely and reliably, without unpleasant smell and noise. Moreover, they are not sensitive to temperature fluctuations in the environment. Waste water from toilets, bathrooms, kitchens and similar household sources of pollution are purified to such extent that water can be safely released to surface waters, or can be used for watering of lawns and trees with additional treatment. Purifying plants are constructed in accordance with standard SIST EN 12566-3 which is valid in EU (BOD 5 < 30 mg/L; COD < 150 mg/L). In the tank we install different waste water cleaning technologies.



2. LOW OPERATION COSTS

High level of economic and energy efficiency.



3. RELIABILITY AND TRUST

Over 20,000 waste water treatment plants, oil separators, septic tanks and rain water tanks are installed in more than 50 countries around the world. ROTO is a pioneer in the field of waste water treatment production in Europe. Company also received ZRMK Building and Civil Engineering Institute's award, which is selected by experts in civil engineering, which proves product's excellence.



4. EXCELLENT SERVICE AND TECHNICAL SUPPORT

Quick supply, maintenance, start-up and servicing performed by expert staff. Servicing by the ROTO company comprises the checking of mechanical parts in a plant, general cleaning services and operating situation control, as well as the testing of all functions performed by individual plant parts. The user is instructed about maintenance and the correct use of treatment plant. We can also organise or supervise the installation of plant.



5. PLUG AND PLAY

Ready to use product, easy and quick installation in few days. Suitable for remote installation without infrastructure.



6. TANK IS MADE FROM POLYETHYLENE

Polyethylene can be 100 % recycled, has good mechanical resistance. Tanks are produced in one part and are 100% watertight.

7. CONTAINER SIZED

Completed waste water treatment plant can be delivered in containers. In 40 ft container we can fit 40,000 L tank.

8. EU PRODUCTS

Purifying plants are manufactured and certified in EU countries

Size of the waste water treatment plant

Determining the size of the waste water treatment plant

- The size of the waste water treatment plant is determined by population units (PU) or equivalent users, while at the same time defining the biochemical capacity of the treatment plant.
- The PU unit signifies the specific consumption of water ranging from 0.15 to 0.20 m³/person/day and the biochemical load of 0.06 kg BOD₅/person/day.
- Working volume which is necessary to purify the waste water is from 500 to 800 liters per person

ACCOMMODATIONS:

- 3-person = 1 PU

APARTMENTS:

- 2-person = 1 PU

RESTAURANTS:

- with kitchen – 2-person = 1 PU
- without kitchen – 3-person = 1 PU
- garden terrace – 10-person = 1 PU (without kitchen)

INFORMATION IS IMPORTANT IN THE DESIGN, STRUCTURE, CALCULATION OF PU AND OF COURSE THE PURCHASE.

Additional equipment



Ladle for sample of water from aeration chamber.



Measure cylinder – for measure the quantity of active sludge.



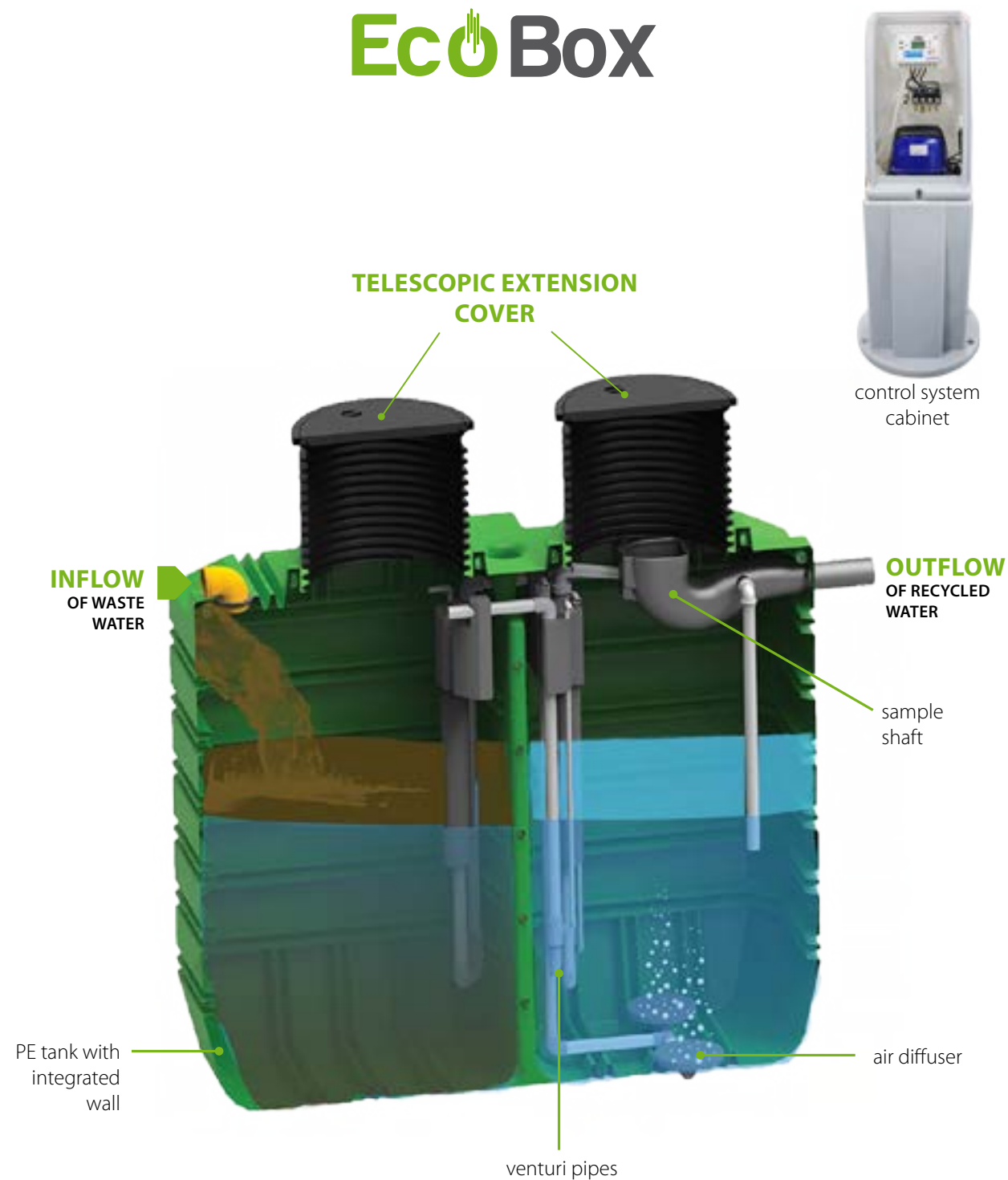
SBR

MBR

MBBR

ACTIVATED SLUDGE

WASTE WATER TREATMENT PLANTS



roWEB
System and web
application for remote
control and operating
mode of waste water
treatment plants



SBR TECHNOLOGY:

Process is managed by computer which is installed into the special box. Software is steering 4 magnetic valves. Each valve has specific function:

1. Pumping water from mud collector to the aerator.
2. Aeration in aeration chamber.
3. Pumping of purified water from aeration chamber to the outflow.
4. Pumping sediment mud from aerator chamber back to the mud collector

waste water treatment plant 2-9 PU



- Is suitable for residential buildings with constant flow of black and grey water.

- **Excellent statics.** Due to rectangular shape and ribs for reinforcement it is also load vehicle bearing.

- **Easy installation.** Because of rectangular shape and movable inflow elbow installation is fast and easy. Required dimensions of construction pit are small. Backfilling is done with sand. Two revision shafts are installed for maintenance and repair works.

- **High efficiency of cleaning.** Due to advanced SBR system with computer steering.

- **Low operation costs.** Silent air compressor, low energy consumption, easy and low costs maintenance.

- It is in compliance with EU regulation and is tested according to standard EN12566/3.



INSTALLATION
Easy to install because of its square shape and adjustable inflow (270°).

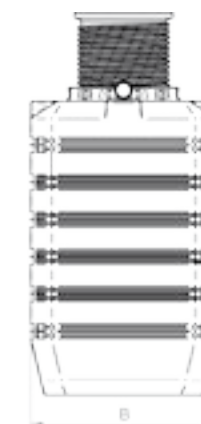
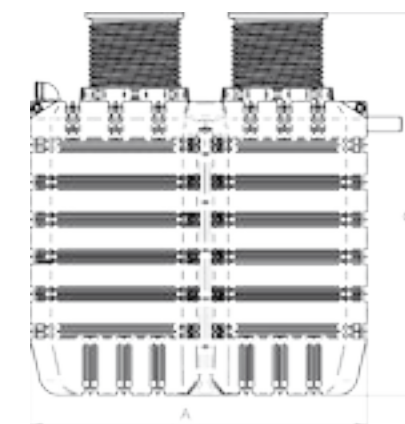


CONTROL SYSTEM CABINET
Indoor/outdoor cabinet for system control with air compressor and valve unit.



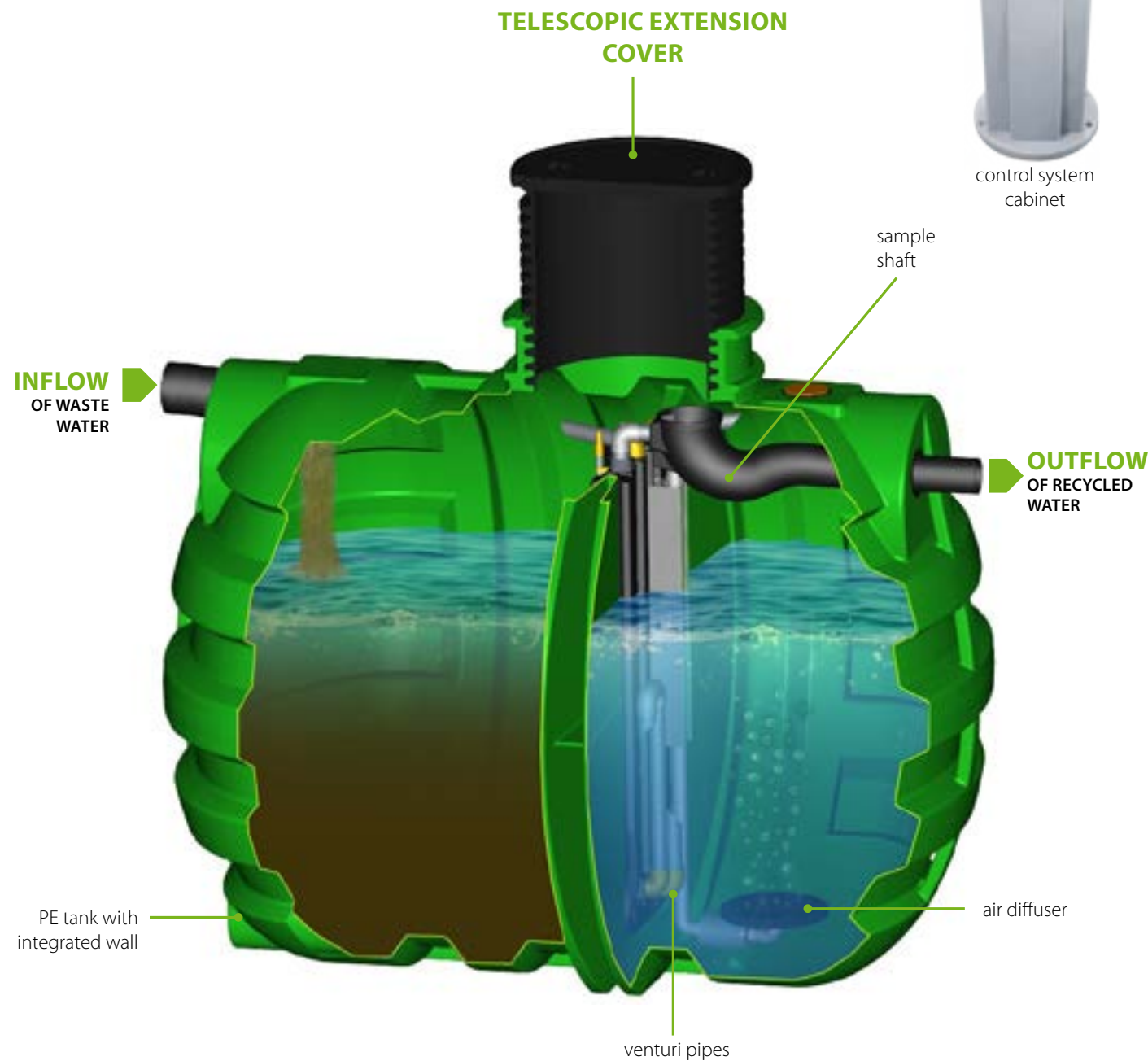
TELESCOPIC EXTENSION
Is designed like a screw so we can adjust the height of tank during installation.

PU	Volume [L]	Code	Dim. A x B x C [mm]	Cover [mm]	Max. day inflow [m³/day]
2-5	4.000	7200079950	2330 x 1175 x 2440	2 x Ø600	0.75
6-9	6.000	7200076730	2450 x 1350 x 2720	2 x Ø600	1.2





control system cabinet



42

waste water treatment plant

2-8 PU



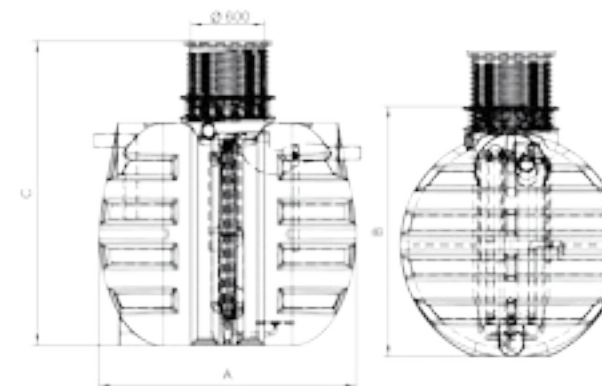
- Plug and play system - Installation is very simple. We provide you plug and play system that suits the level of outflow waste water. The air pressure hoses and the corresponding connections to the system control are colour-coded. This avoids installation errors.

- Holiday mode - The SBR wastewater treatment system can be adjusted to changing conditions by altering the cycle times. The system can also be switched to holiday mode.

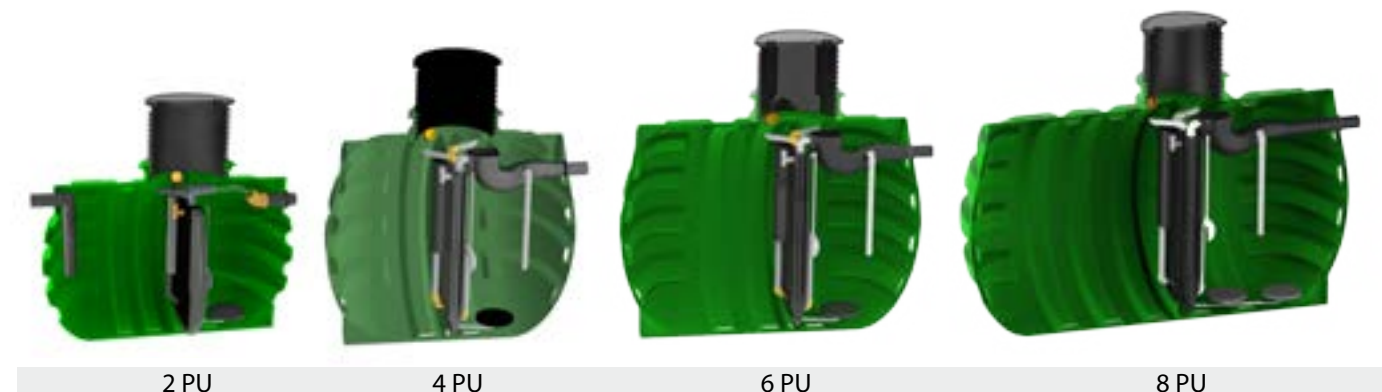
- Low maintenance costs - The LCD display shows the operating hours of the individual devices. Any power failure is indicated with alarm. All components installed in such a way that they can be exchanged very easily.

- Certified to European Standard EN12566
- Superior performance rating
- No mechanical or electrical components within the plant
- Low running and maintenance costs

43



Volume [L]	PU	Code	Dim. A x B x C [mm]	Cover [mm]	Max. day inflow [m³/day]
2.600	2	7200079830	2150 x 1400 x 1600-2100	Ø600	0,3
3.500	4	7200079840	2080 x 1800 x 2050-2550	Ø600	0,6
5.000	6	7200079850	2450 x 1800 x 2050-2550	Ø600	0,9
6.000	8	7200079860	2820 x 1800 x 2050-2550	Ø600	1,2



2 PU

4 PU

6 PU

8 PU



SBR TECHNOLOGY:

Process is managed by computer which is installed into the special box. Software is steering 4 magnetic valves. Each valve has specific function:

1. Pumping water from mud collector to the aerator.
2. Aeration in aeration chamber.
3. Pumping of purified water from aeration chamber to the outflow.
4. Pumping sediment mud from aerator chamber back to the mud collector

The principle of SBR lifting technology: All movement processes are performed by air lift pumps. The air compressor is very durable and quiet, it provides air to the aeration plate on the bottom of the tank. The distribution of air in the individual pump processes is realised via the control.



Roclean

waste water treatment plant

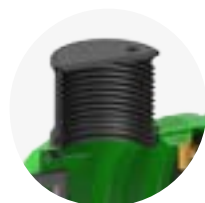
12-50 PU



SBR SYSTEM
All airlift pipes are installed on integrated division wall



CONTROL SYSTEM CABINET
Indoor/outdoor cabinet for system control with air compressor and valve unit.



TELESCOPIC EXTENSION
Is designed like a screw so we can adjust the height of tank during installation.

Volume [L]	PU	Code	Dimension A x B x C [mm]	Cover [mm]	Max. day inflow [m³/day]
8.000	12	7200063770	2680 x 2300 x 2350-2850	2xØ600	1,8
10.000	16	7200063780	3040 x 2300 x 2350-2850	2xØ600	2,4
12.000	20	7200063790	3760 x 2300 x 2350-2850	2xØ600	3
16.000	30	7200063760	4840 x 2300 x 2350-2850	3xØ600	5
16.000	40	7200063820	4840 x 2300 x 2350-2850	3xØ600	6
22.000	50	7200063830	6280 x 2300 x 2350-2850	3xØ600	8



12 PU

16 PU

20 PU

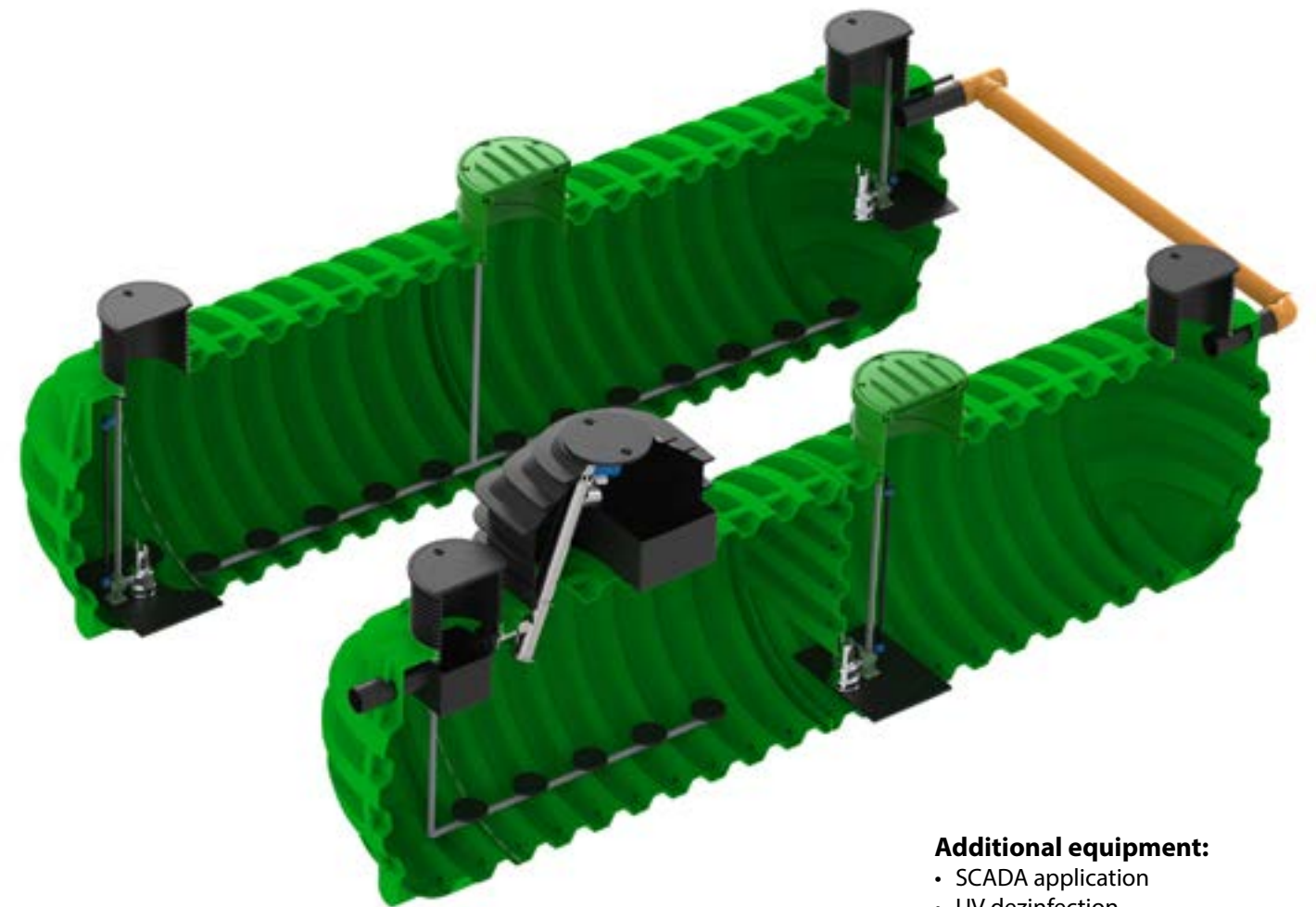
50 PU



Roclean

waste water treatment plant

75-400 PU



- SBR technology
- plug and play
- easy to install
- low maintenance costs
- fully automatized

Additional equipment:

- SCADA application
- UV disinfection
- chemical cleaning
- decanting pump
- container
- flow measurement
- fine screen bar

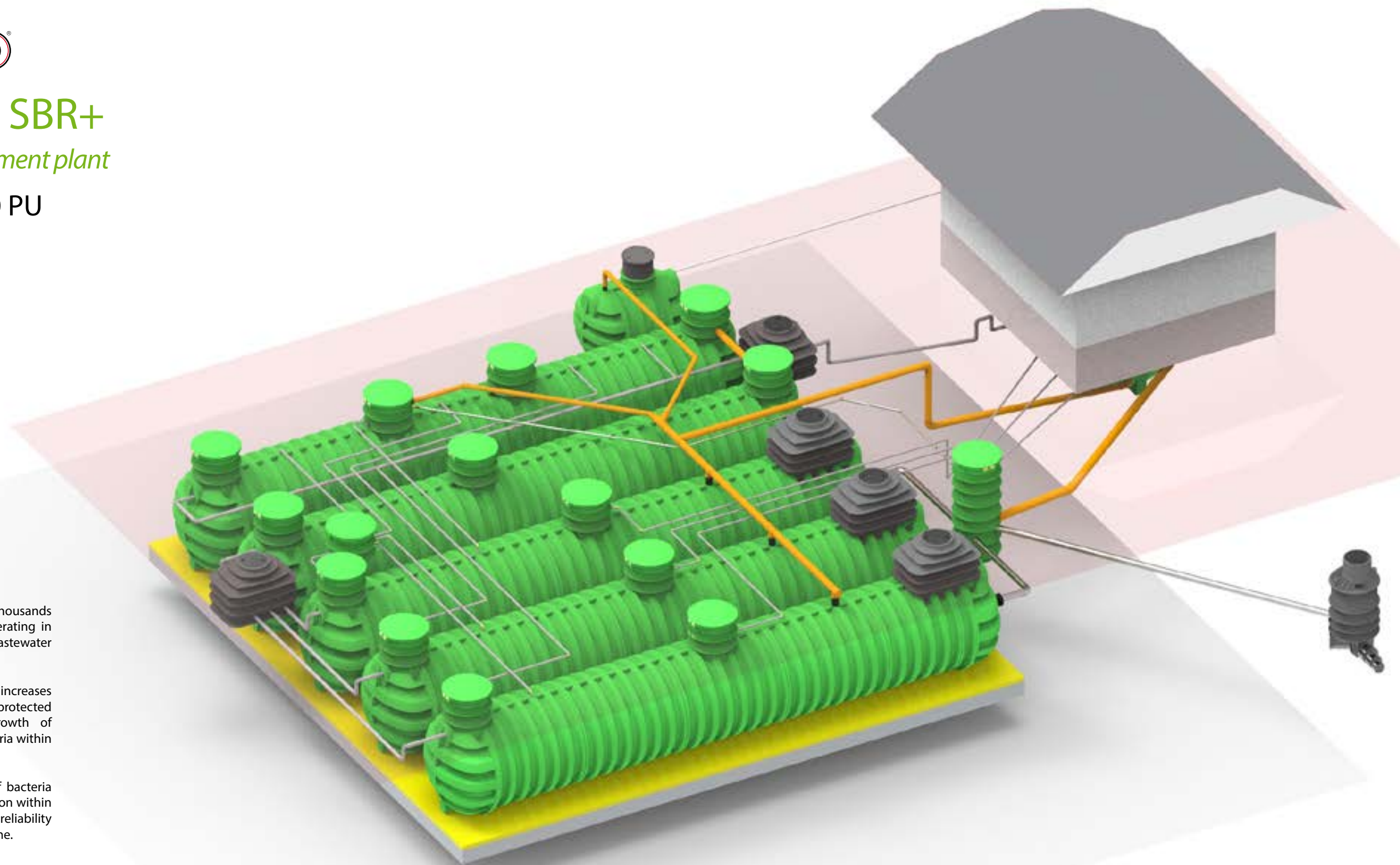
Volume [L]	PU	Code	Dimension A x B x C [mm]	Cover [mm]	Max. day inflow [m³/day]
25.000	75	7200063850	7370 x 2300 x 2350-2850	2xØ600, 1xØ800	12
30.000	100	7200063840	8450 x 2300 x 2350-2850	2xØ600, 1xØ800	15
40.000	150	7200063860	10970 x 2300 x 2350-2850	2xØ600, 1xØ800	23
50.000	200	7200063870	13490 x 2300 x 2350-2850	2xØ600, 1xØ800	30
1x40.000 1x35.000	300	7200063880	1x (10970 x 2300 x 2350-2850) 1x (9890 x 2300 x 2350-2850)	4xØ600, 2xØ800	45
1x45.000 1x40.000	400	7200063890	1x (12410 x 2300 x 2350-2850) 1x (10970 x 2300 x 2350-2850)	4xØ600, 2xØ800	60



Roclean SBR+

waste water treatment plant

500 - 2000 PU



• MBBR technology or SBR+ employs thousands of polyethylene biofilm carriers operating in mixed motion within an aerated wastewater treatment basin.

Each individual biocarrier increases productivity through providing protected surface area to support the growth of heterotrophic and autotrophic bacteria within its cells.

It is this high-density population of bacteria that achieves high-rate biodegradation within the system, while offering process reliability and easy of operation at the same time.

Advantages of MBBR technology:

- Increased cleaning efficiency.
- Smaller volumes of tanks.
- High resistance to hydraulic and organic load.
- Good separation of suspended solids.
- No feedback sludge.
- Independent control of retention times.

Advantages of waste water treatment plant 500-2000 PU:

- Fully automated.
- Quality pre cleaning.
- Recovering of data.
- Cost effective.
- Easy and quick installation.

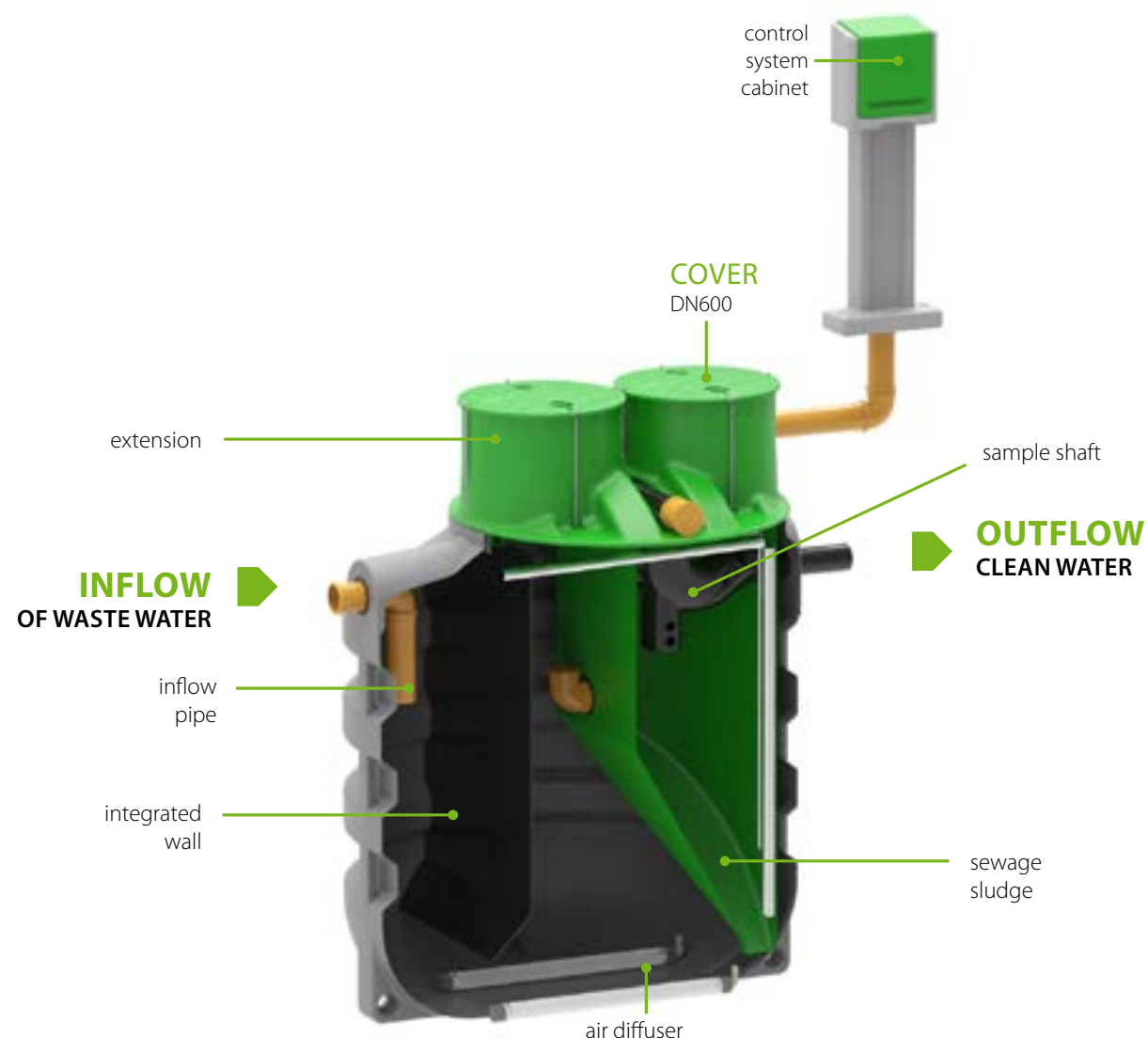
Additional equipment:

- SCADA application
- UV dezinfection
- cemical cleaning
- decanting pump
- container
- flowmeasurement
- fine screen bar
- grease separator
- dry sludge finishing

- grease separator
- pumping station
- sludge tank

- pre-treatment
- primary treatment
- secondary treatment
- tertiary treatment
- odor control
- noise control
- energy consumption control

Volume [L]	PU	Dimension A x B x C [mm]
2x50.000	500	2x (13490 x 2300 x 2300-2800)
4x50.000	1000	4x (13490 x 2300 x 2300-2800)
6x50.000	1500	6x (13490 x 2300 x 2300-2800)
8x50.000	2000	8x (13490 x 2300 x 2300-2800)



waste water treatment plant

2-8 PU

- RoEco waste water treatment plant is suitable for cleaning the black and gray water from households, small enterprises. It is in compliance with EU regulation and is tested according to standard EN12566/3.

COVER

- easy access, sampling, servicing
- driveable up to 600 kg, unseen on greenery
- waterproof and gasproof: no odor and rainfall
- lid locking system: child safety and third parties
- telescopic extension: we can adjust the height at the construction site

TANK

- monolit tank: there are no stick that could damage the tank cracking
- reinforcing ribs 60 degrees: excellent statics provide resistance to earth's pressures

CONTROL SYSTEM CABINET

- external cabinet, ensures longer life of electronic components
- possibility of mounting on different heights
- free standing cabinet at the cleaning plant
- compresor is integrated into control system cabinet, which can be max 6-7 m far away from the waste water treatment plant.

Volume [L]	PU	Code	Dimension ØA x B [mm]	Cover [mm]
3.200	3	7200668100	Ø1800 x 2000	2 x Ø600
4.000	5	7200663800	Ø1800 x 2350	2 x Ø600
6.000	8	7200663810	Ø2300 x 2300	2 x Ø600



CONTROL SYSTEM CABINET 3, 5 PE



CONTROL SYSTEM CABINET 8 PE

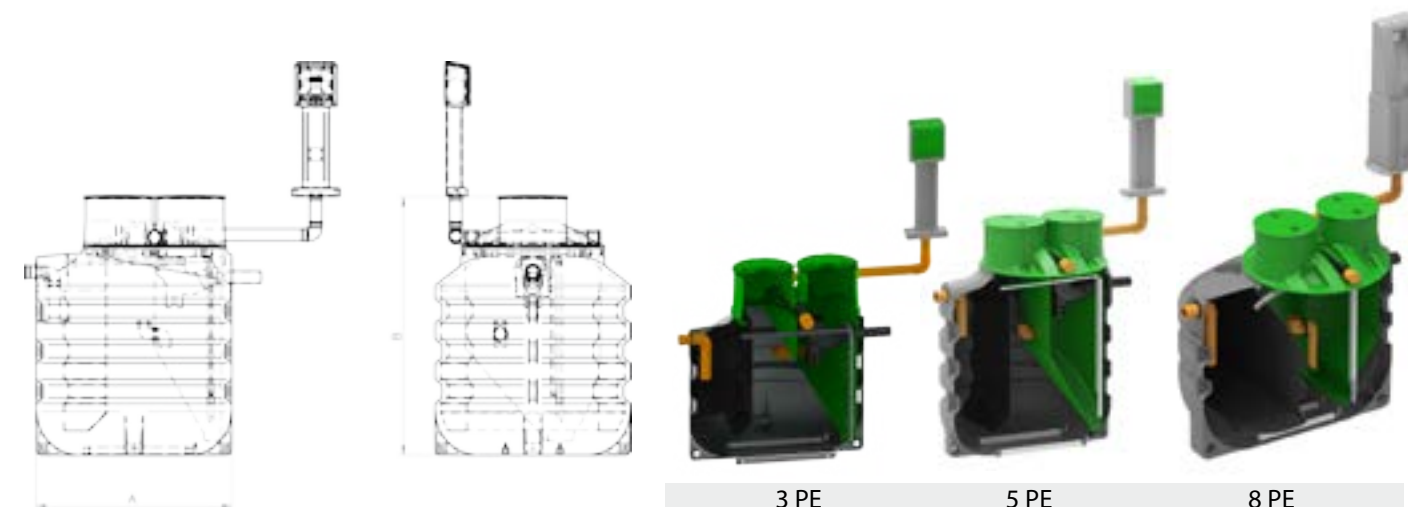
ACTIVATED SLUDGE

The sediment-selective chamber (the SS chamber)

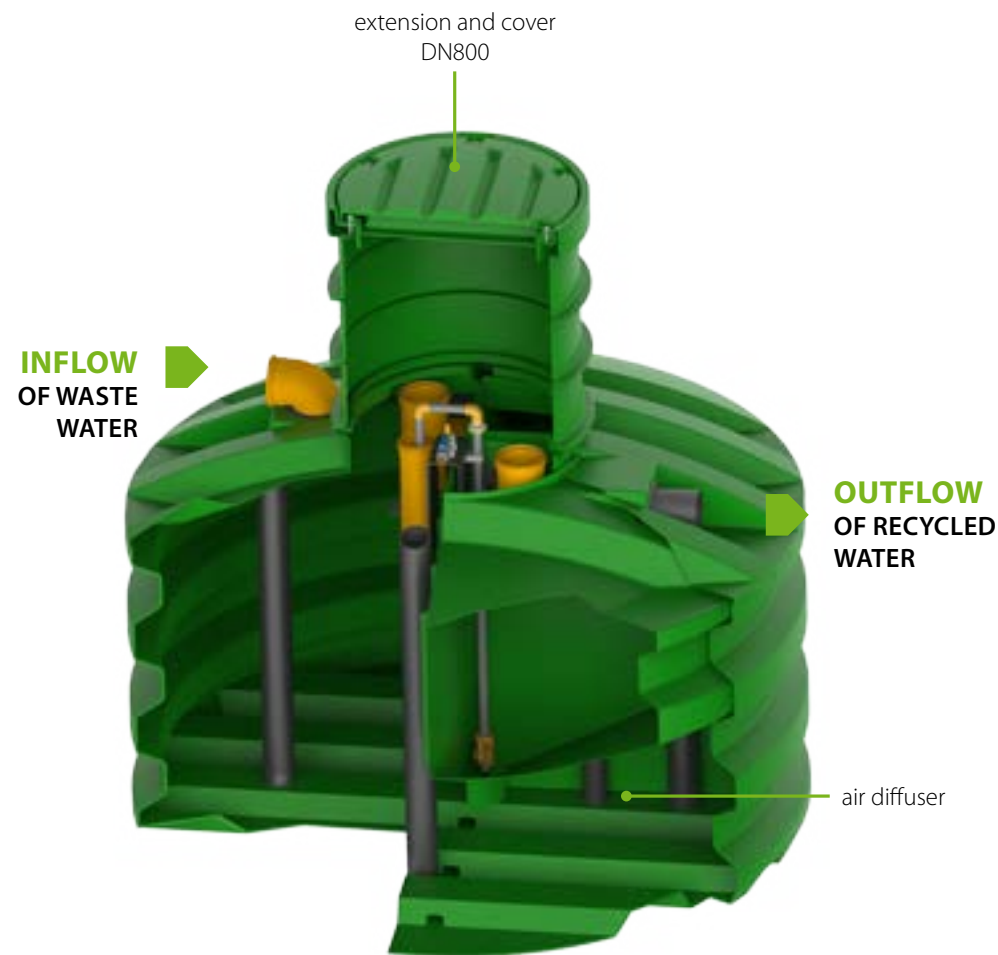
is a flow chamber of the waste water treatment plant, into which flow the household discharges that will be biodegraded. The discharges, mixed with active mud, move through the opening at the bottom into the aeration-activation chamber.

Into the aeration-activation chamber (the AA chamber), air is supplied by means of a ventilating fan and is lifted in small bubbles through aerators installed at the bottom of the device to the surface. The AA chamber enables the biological process of water purification with bacteria and air. The bacteria have enough oxygen and feed on waste supplied from the SS chamber.

Separation chamber (the S chamber): A mixture of mud comes from the AA chamber to the separation chamber, where the separation of the purified water from active bacteria takes place. The active bacteria sink to the bottom of the S chamber, from where they are pumped to the beginning of the process, while the purified water flows out into nature. The mud mixture, which can also be used as fertilizer, must be pumped out twice a year. We provide expert assistance in treatment plant maintenance.



roto
EcoBlue
 MBBR purification technology



50



MBBR TECHNOLOGY

Eco Blue waste water treatment plant for residential buildings with no regular inflow.

PRE-CLEANING

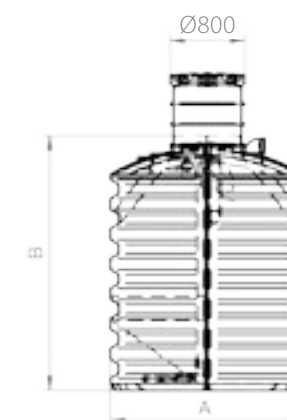
Black and grey water (waste water) is collected in sedimentation chamber, where it settles. Volume of this chamber is bigger than in conventional SBR systems. After certain time in sedimentation chamber, waste water flows in to aeration chamber with biofilm carriers.

AERATION CHAMBER WITH BIOFILM CARRIERS

In second chamber two diffusers are installed for aeration. They are connected with compressor and steering unit, which regulates air supply in intervals. Pressure gauge detects defects in system (clogging). Biofilm carriers offers habitat for bacteria to live and reproduce, which results in better efficiency of cleaning and longer live span of bacteria.

SEDIMENTATION AND OUTFLOW

Subsequent sedimentation is more efficient due to conical sedimentation tank in third chamber. Clean water flows out at top of third chamber through outlet pipe and sediment is returned to first chamber (pre-cleaning) by steering unit and compressor.



4-6 PU

8-10 PU

12-14 PU

roto
EcoBlue

waste water treatment plant

4 - 14PU

Eco Blue is suitable for all residential buildings with no regular inflow, such as weekend houses, apartments, camps...

PRE-CLEANING

Black and grey water (waste water) is collected in sedimentation chamber, where it settles. Volume of this chamber is bigger than in conventional SBR systems. After certain time in sedimentation chamber, waste water flows in to aeration chamber with biofilm carriers.

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SEDIMENTATION AND OUTFLOW

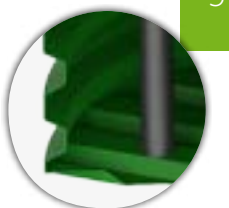
Subsequent sedimentation is more efficient due to conical sedimentation tank in third chamber. Clean water flows out at top of third chamber through outlet pipe and sediment is returned to first chamber (pre-cleaning) by steering unit and compressor.



MOVING BED
 Bioreactors (MBBR) biologically treat wastewater by circulating moving media in activated sludge environment.



INFLOW/OUTFLOW
 Inflow and outflow pipes can be installed (DN160 mm) - including rubber washer.



INSTALLATION
 Easy to install because of its flat bottom. Tank is constructed with great statics.

51

Volume [L]	PU	Code	Dim. ØA x B [mm]	Cover [mm]	Max. day inflow [m³/day]
5.000	4-6	7200079870	Ø2310 x 2400	Ø800	0,9
7.500	8-10	7200079880	Ø2310 x 3100	Ø800	1,5
10.000	12-14	7200079890	Ø2310 x 3750	Ø800	2,4



RoMem

waste water treatment plant

4-6PU

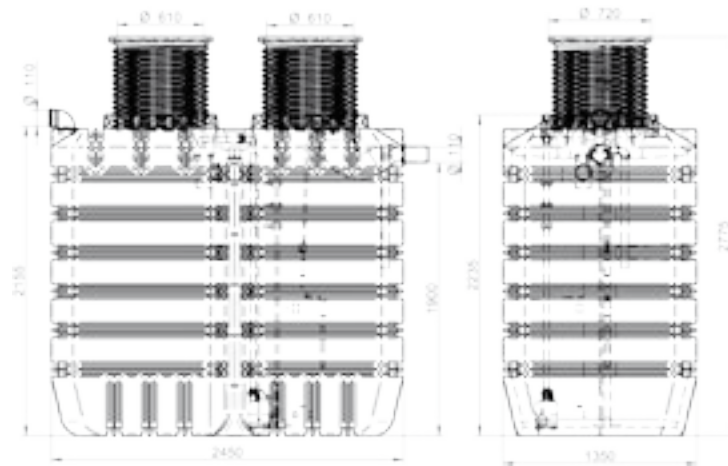
• RoMem includes membrain filtration unit that enables high purification efficiency and reuse of water for watering and sanitary water.

• A membrane bioreactor (MBR) is a waste water treatment process combining membrane filtration with biological treatment.

• **Excellent statics** of tank due to rectangular shape and ribs for reinforcement it is also load bearing up to 12 t.

• **Easy installation.** Because of rectangular shape and movable inflow elbow installation is fast and easy. Required dimensions of construction pit are small. Backfilling is done with sand. Two revision shafts are installed for maintance and repair works.

• **High efficiency of cleaning.** Process is operated with computer controlled MBBR system.

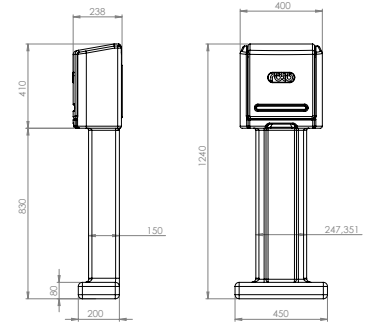


PU	Volume [L]	Code	Dimension A x B x C [mm]	Cover [mm]	Max. day inflow [m³/day]
4	4.000	7200088800	2330 x 1175 x 2440	600	0.6
6	6.000	-	2450 x 1350 x 2775	600	0.9

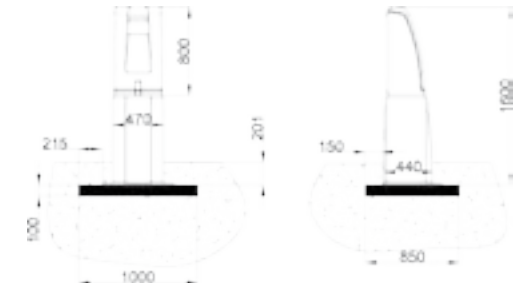
CABINET FOR REMOTE CONTROL



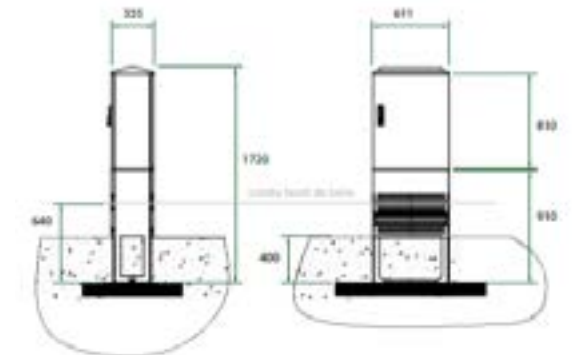
RoEco 3 - 5PU
indoor/outdoor
Material: polietilen
IP 45



**RoEco 8PU,
EcoBox 2 - 9PU,
RoClean 2 - 20PU**
indoor/outdoor
Material: polietilen
IP 45



RoClean 30 - 50PU
outdoor
Material: fiberglass (GRP)
IP 54



Model	Size [mm]		
	L	H	W
75 PU	810	1100	640
100 PU	810	1100	640
150 PU	1320	1100	640
200 PU	1320	1100	640
300 PU	2060	1100	640
400 PU	2060	1100	640
500 PU	2060	1100	640

RoClean 75 - 500PU
outdoor
Material: concrete
Material doors: steinlessteel



RoClean 501 - 2 000PU
outdoor
Material: metal, composite

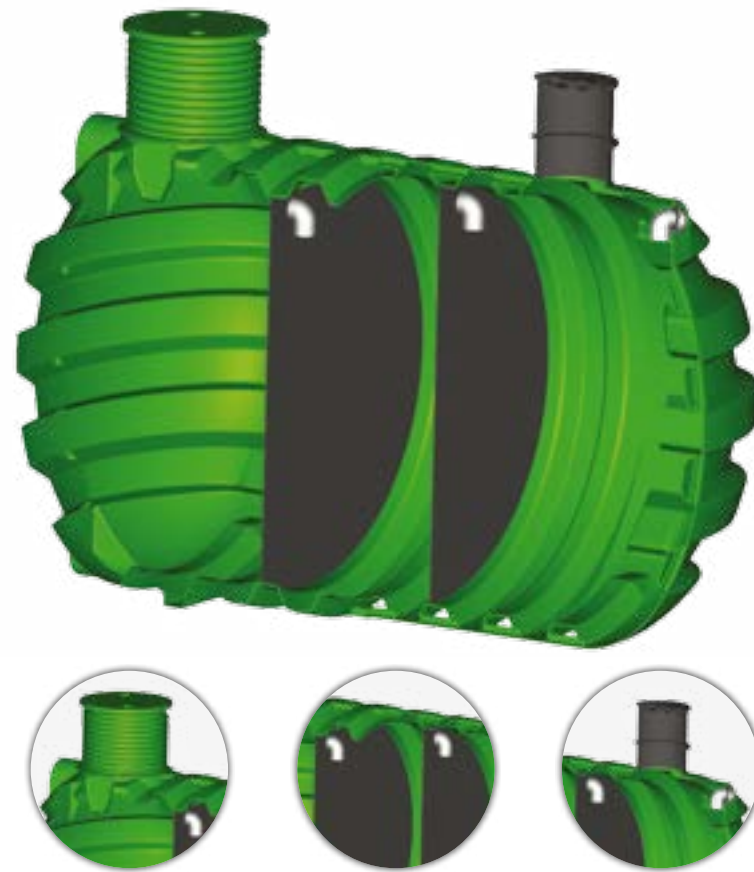
references



SEPTIC TANKS



PRE-PLUMBING: ROTO septic tanks that are “pre-plumbed” with PVC inlet and outlet assemblies ROTO septic tanks will arrive to you ready for installation.



Volume [L]	1-chamber (code)	2-chamber (code)	3-chamber (code)	A (d) [mm]	B (š) [mm]	C (v-min) [mm]	C (v-max) [mm]	D (H inflow) [mm]	DN (inflow/ outflow pipes) [mm]
1.000	7600062380	7600063610	-	1600	1060	1460	-	750	110
2.200	7600067160	7600067610	-	1840	1400	1600	2100	-	110
2.600	7600067180	7600067380	-	2150	1400	1600	2100	1030	110
3.000	7600067170	7600063600	-	2400	1400	1600	2100	-	110
3.500	7600062720	7600063300	7600063310	2080	1800	2050	2550	1630	110
5.000	7600062730	7600063260	7600063270	2450	1800	2050	2550	1630	110
6.000	7600062740	7600063280	7600063290	2820	1800	2050	2550	1630	110
8.000	7600062750	7600062550	7600062560	2680	2300	2350	2850	2100	160
10.000	7600069030	7600069031	7600069032	3040	2300	2350	2850	2100	160
12.000	7600062500	7600062510	7600062530	3760	2300	2350	2850	2100	160
16.000	7600065770	7600066190	7600066200	4840	2300	2350	2850	2100	160
22.000	7600062570	7600062590	7600062690	6280	2300	2350	2850	2100	160
30.000	7600062350	7600063240	7600066210	8450	2300	2350	2850	2100	160
35.000	7600862370	7600862371	7600862372	9890	2300	2350	2850	2100	160
40.000	7600062370	7600062371	7600062372	10970	2300	2350	2850	2100	160
45.000	7600862420	7600862421	7600862422	12410	2300	2350	2850	2100	160
50.000	7600062420	7600062421	7600062422	13490	2300	2350	2850	2100	160



Notes



Grease separators

In businesses which produce wastewater containing fat or grease, grease separators must be installed in accordance with EN 1825 and DIN 4040-100 in order to prevent damage to sewer pipes and wastewater treatment facilities. They reduce incidents of blocked drains from kitchen, improve the performance of septic tanks, prevent contamination of small sewage treatment plants.

Installation

The grease separator should be installed close to the source of contamination, inside or outside the building.

Underground grease separator should be located close to the building in areas where release of strong and aggressive odors will not pose a problem and where is possible to access the separator with the disposal hose of the disposal truck.

The inlet level must be located below the frost level. The grease separator has to be opened for emptying and cleaning.

Material

ROTO grease separators are made from environmentally friendly material (PE). They are very durable, lightweight and resistant against various chemical substances used in kitchen.

Advantages

- produced in EU
- in accordance with standard BS EN 1825-1
- made from durable, hard polyethylene (LLDPE)
- has a long lifetime
- 100% recyclable after use
- waterproof
- quick and easy installation (light weight, no need for a crane)
- easy maintenance
- low operating costs

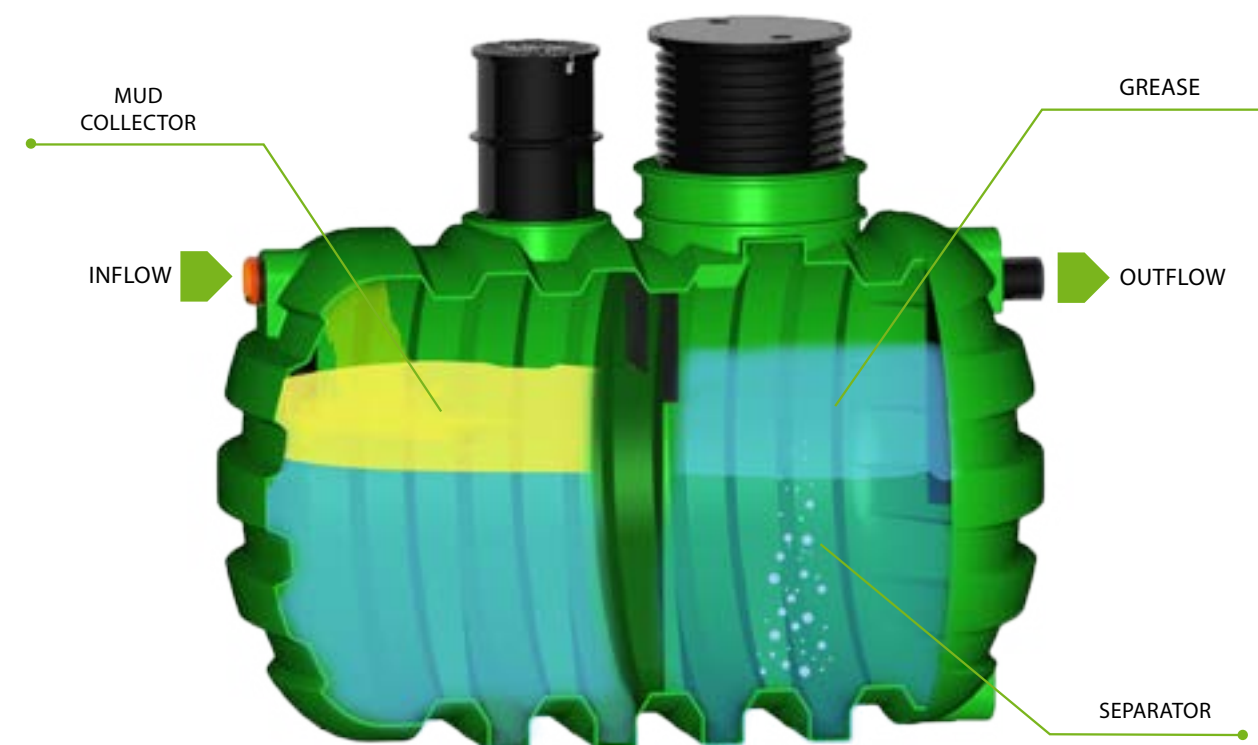
Determine the size

Size of grease trap is determined by number of meals or the maximum possible flow of contaminated water, type of pollution, effluent temperature and detergent use.

Size can be calculated by the formula:

$$NG = Q_s * f_d * f_t * f_r * f_m$$

Q_s - the amount of waste water in l/s
 f_d - density of grease (if it is greater or lesser than 0.94 g/cm³)
 f_t - temperature factor (if higher than 50 °C, is increased)
 f_r - detergents factor
 f_m - increased grease factor



UNDERGROUND

KITCHEN

CELLAR

WITH BIO. DEGRADATION

GREASE SEPARATORS

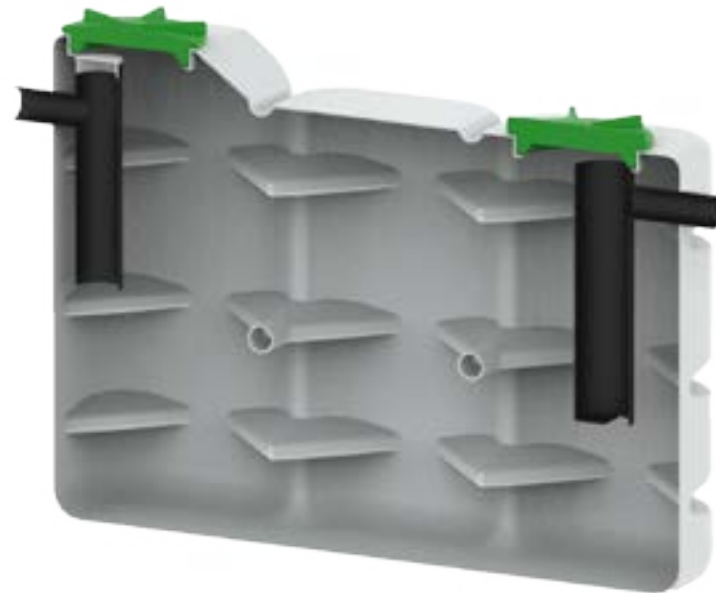


Romast grease separators

• RoMast Grease separators are a small free standing solutions to separate grease from wastewater. They fit under the sink of the kitchen or you can install them also in the basement.

• The remaining grease can be removed manually through big opening on the top.

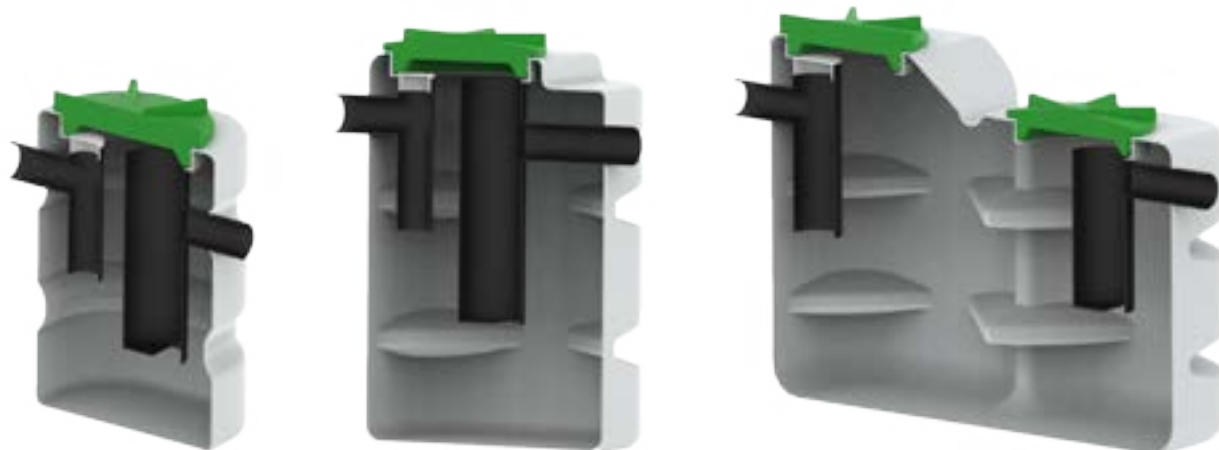
• RoMast grease traps are easily to install, require low maintenance and deliver long-lasting performance.



Volume [L]	NG [L/s]	Code	Dimension A x B x C [mm]	Pipe diameter DN [mm]
100	0,25	7400778100	530 x 530 x 420	110
250	0,5	7400777880	600 x 600 x 928	110
500	1	7400777940	760 x 760 x 1100	110
1.000	2	7400778580	1520 x 760 x 1150	110
2.000	4	7400075290	2250 x 750 x 1600	160



NG 0,25



NG 0,5

NG 1

NG 2



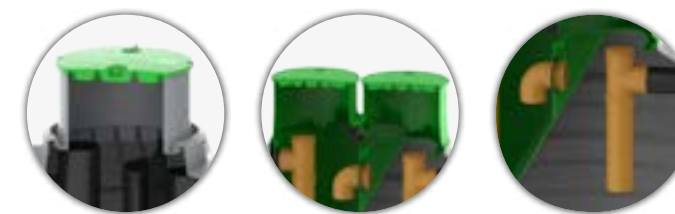
Rogre grease separators

• Compact vertical design for ease of handling, installation and maintenance

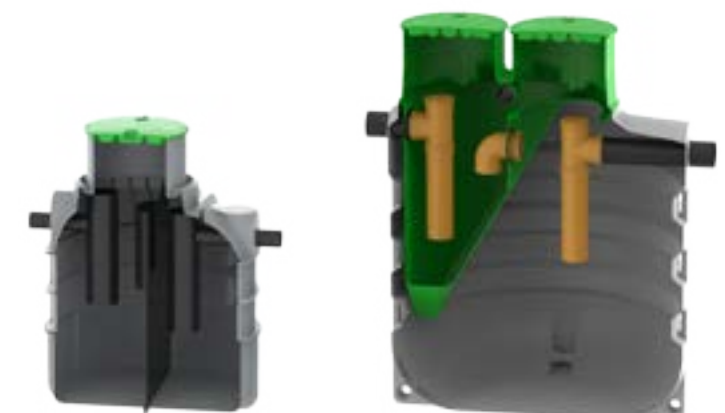
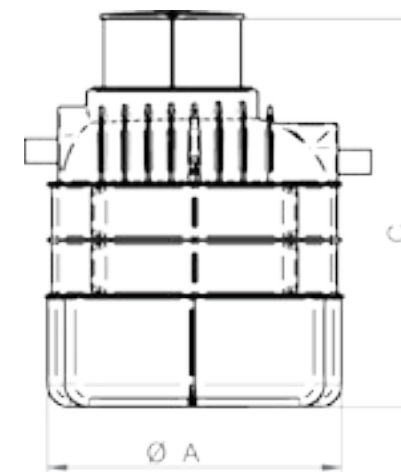
• All grease separators are supplied for underground installation

• Maintenance friendly design; due big opening, easy to clean

• Leak-tightness up to ground level guaranteed.



Volume [L]	NG	Code	Dimension A x C [mm]
1.000	2	7400775310	Ø1200 x 1450 - 1750
2.200	4	7400775320	Ø1500 x 1500 - 1800
3.200	7	7400775330	Ø1800 x 1650 - 1950
4.000	10	7400775340	Ø1800 x 2050 - 2350
6.000	15	7400777960	Ø2300 x 2000 - 2300
7.500	20	7400775360	Ø2300 x 2400 - 2700



NG 2

NG 10



Rofett

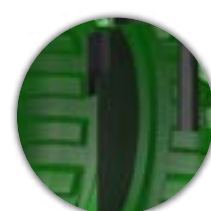
grease separators

• Grease tends to form heavy congestion that grows steadily, stops wastewater flow, damages the sewage infrastructure, pose a public health hazard and result in business losses. Separate grease from wastewater in institutional kitchens, restaurants and food processing facilities is polluted with fat and grease.

• RoFett is extremely efficient in cleaning water contaminated with grease of organic origins.

• The systems are easily installable, require very little maintenance and are guaranteed to deliver long-lasting performance.

• Compatible with other water treatment systems.



Volume [L]	NG	Code	Dim. A x B x C [mm]	Cover [mm]
500	2	7400075310	1330 x 860 x 1000	400
1.000	3	7400075370	1740 x 1060 x 1020	400
2.000	4	7400075320	1900 x 1400 x 2060	600
3.500	6	7400075330	2100 x 1800 x 2450	600
5.000	10	7400075360	2550 x 1800 x 2500	600
6.000	15	7400075340	2900 x 1800 x 2500	600
8.000	20	7400075390	2780 x 2300 x 2850	600
12.000	25	7400777970	3800 x 2300 x 2870	600



NG6

NG10

NG15

NG20

NG25



Biofett

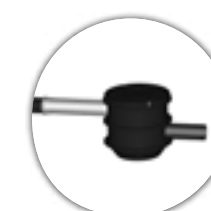
grease separators

• Grease separator with biological degradation contains system for pH regulation and autorelease cartridge system for fats, oils and greases (FOG) reduced.

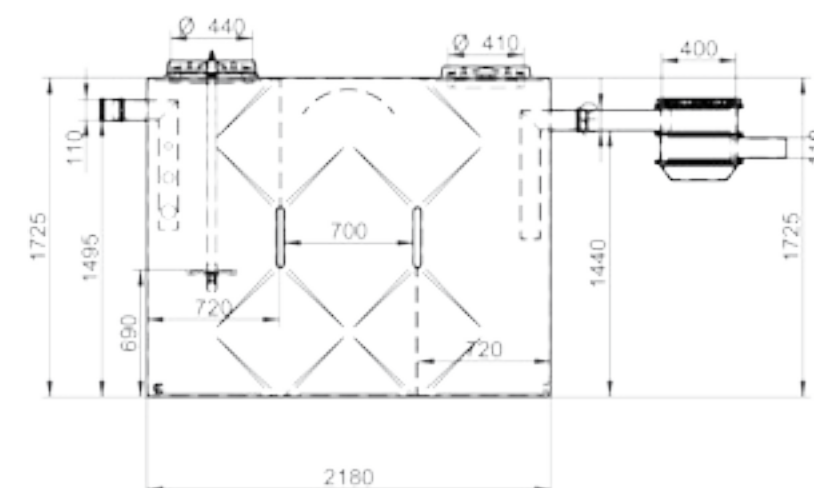
• Automated cartridge delivery system contains a water based suspension of preselected, adapted microorganisms used to treat fats, oils and greases (FOG) in drain lines of food service establishments.

ADVANTAGES

- decrease frequency of emptying the grease separator
- fully automated system
- safe, easy to use and handle
- low maintenance costs
- easy to install



Volume [L]	NG	Code	Dim. A x B x C [mm]
2.300	4	740075690	2180 x 700 x 1725





Oil separators

Light liquid separators are designed according to EN 858 and DIN 1999-10.

APPLICATION

Oil and coalescence separators are required where light liquids occur. This is usually at

- Petrol / Gas stations,
- Car washes,
- Vehicle workshops
- Car-parks

Selection of the appropriate trap

Roto oil separator are used in combination with the mud separator and sample shaft. Therefore the entire chain consists of: mud separator – oil separator – sample shaft. In accordance with the norm, the nominal size is given by the formula:

$$N_s = (Q_r + f_x * Q_s) * f_d$$

NS = nominal volume in l/s

Qr = max. flow of rainwater in l/s

Qs = max. flow of wastewater in l/s

fx = retention factor, depending on the nature of release (Table I)

Fd = density factor for the suitable light fluid (Table I)

SEPARATOR CLASSES

Class I

Designed to achieve a concentration of less than 5mg/l of oil under standard test conditions and should be used when the separator is required to remove very small oil droplets. A coalescence filter insert is installed before the drain to improve the separating effect in the separator. When the water flows through, tiny oil drops combine to form large drops which then leave the coalescence material. With oil separators a special inlet system has a plug-flow effect in the separator. This slows the flow down and distributes it in a hydraulically effective way over the separator space. The heavy materials sink to the bottom and are separated out, the light materials rise to the top and are separated off there.

Class II

Designed to achieve a concentration of less than 100mg/l oil under standard test conditions and are suitable for dealing with discharges where a lower quality requirement applies.

With Bypass

Bypass separators fully treat all flows generated by rainfall rates of up to 6.5mm/hr. (99% of all rainfall events). These separators are used on parking area when it is considered an acceptable risk not to provide full treatment for high flows, for example where the risk of a large spillage and heavy rainfall occurring at the same time is small.

The following cleaning steps are performed in the mud separator:

- 1) Water contaminated with oil and mud flows to the tank.
- 2) The mud is deposited at the bottom of the tank. When the water reaches the second part of the tank, the mud has already been removed.
- 3) Oil separates from water in the second part of the tank. Larger oil drops then come to the water surface because of the low density. Smaller drops combine and increase in the filter and then come to the surface.



HORIZONTAL

VERTICAL

WITH BYPASS

FOR FUEL STATIONS

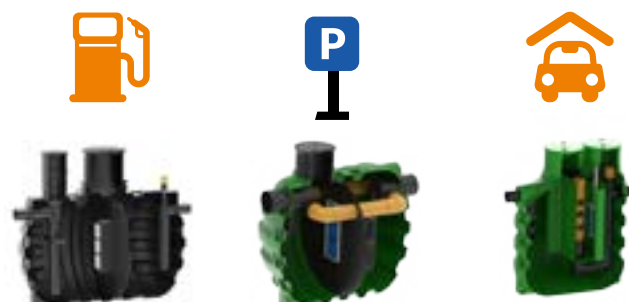
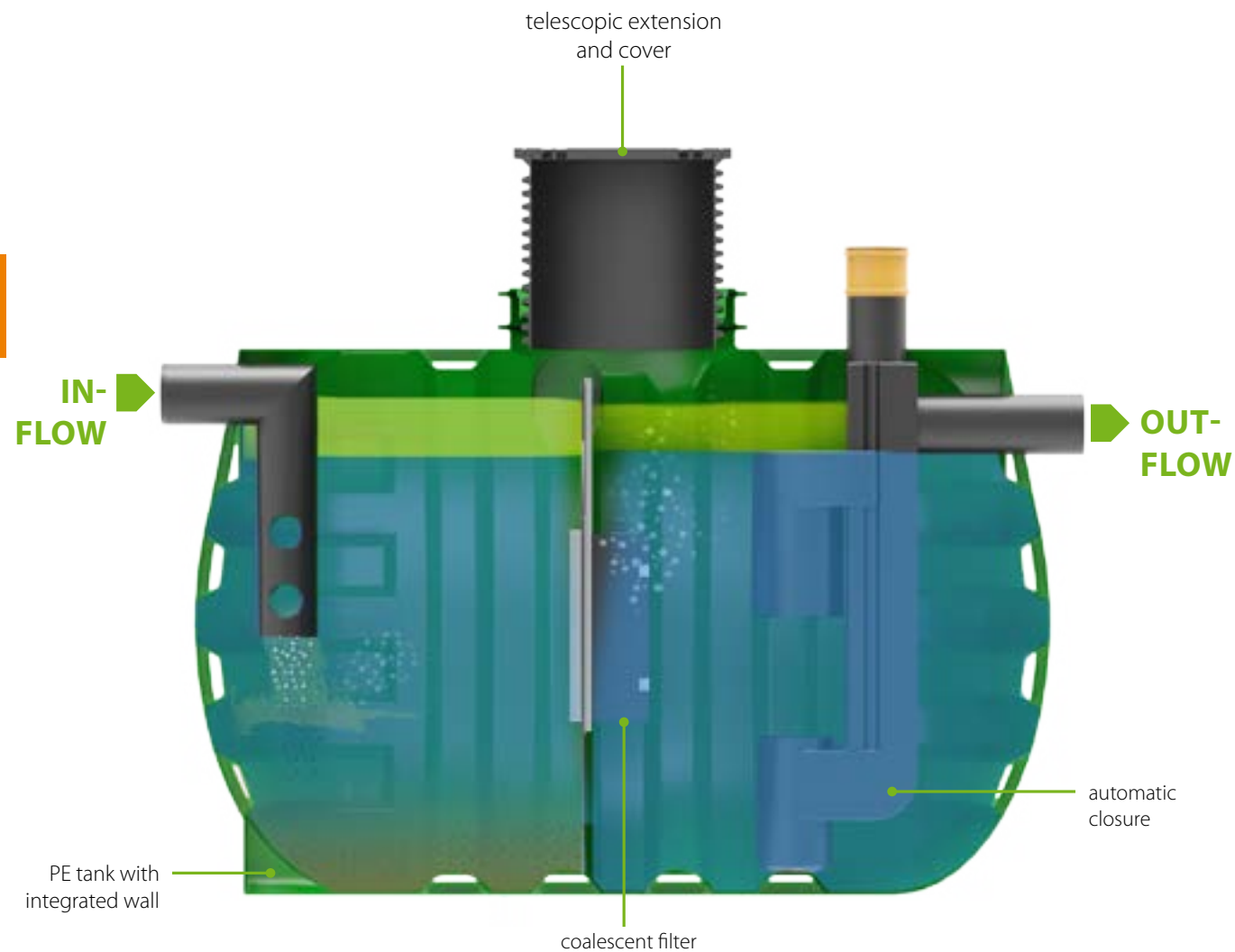
OIL SEPARATORS



Rosep

oil separator

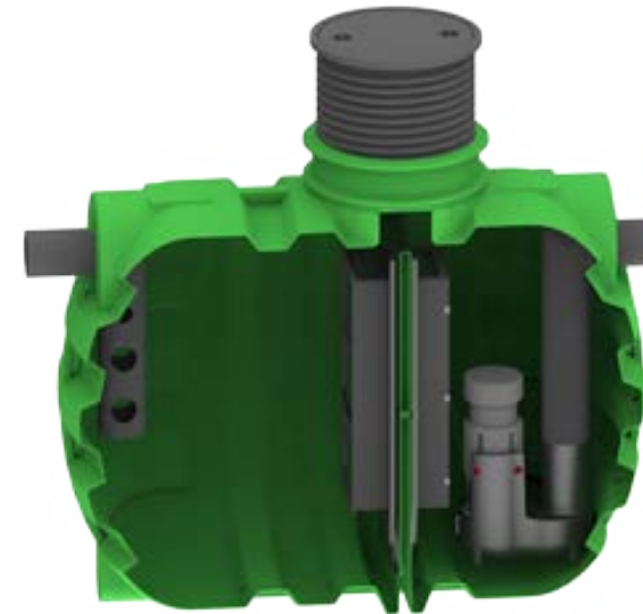
66



Rosep

oil separators
class I

67



- class I coalescing separators do not exceed the hydrocarbon concentration of 5 mg/l
- At repair garages, gasoline stations, car-washing facilities, where oily and flammable liquid wastes are produced, separators shall be installed into which all oil-bearing, shall be discharged before emptying in the building drainage system or other point of disposal.
- ROTO oil separator is equipped with coalescent filter, automatic closure devices and/or electronic warning system.
- Coalescent filters are connected on the integrated wall and can be easily cleaned and replaced



coalescent filter



automatic closure

Volume [L]	NS [L/s]	Code	Dim. A x B x C [mm]	Cover [mm]	Pipes DN [mm]
2.200	3	7300075950	2090 x 1400 x 2100	Ø600	110
3.000	6	7300075970	2560 x 1400 x 2100	Ø600	125
3.500	10	7300072750	2190 x 1800 x 2600	Ø600	160
5.000	15	7300075990	2660 x 1800 x 2600	Ø600	200
6.000	20	7300075880	3030 x 1800 x 2600	Ø600	200
8.000	30	7300072730	2870 x 2300 x 2850	1xØ600, 1xØ800	250
10.000	40	7300072780	3330 x 2300 x 2850	1xØ600, 1xØ800	250
12.000	50	7300072760	4360 x 2300 x 2850	1xØ600, 1xØ800	315
16.000	65	7300072000	5030 x 2300 x 2850	1xØ600, 1xØ800, 1xØ250	315
22.000	80	7300072890	6470 x 2300 x 2850	2xØ600, 1xØ800	315
25.000	100	7300074210	7650 x 2300 x 2850	2xØ600, 1xØ800	315
30.000	125	7300072010	8830 x 2300 x 2850	2xØ600, 1xØ800	400
35.000	150	7300075920	10170 x 2300 x 2850	2xØ600, 1xØ800	400
40.000	200	7300075980	11350 x 2300 x 2850	2xØ600, 1xØ800	400
45.000	250	7300076000	12790 x 2300 x 2850	2xØ600, 1xØ800	400
50.000	300	7300072020	13600 x 2300 x 2850	2xØ600, 1xØ800	400



NS15



NS20



NS80



RoSep

oil separators

class II

- RoSep class II are gravitation separators.
- Are designed to achieve a concentration of less than 100mg/l oil under standard test conditions and are suitable for dealing with discharges where a lower quality requirement applies (for example where the effluent passes to the waste water treatment for municipality).
- All materials used are highly durable and non-corrosive and all equipment used in the system is produced according to the highest quality standards.



Volume [L]	NS [L/s]	Code	Dim. A x B x C [mm]	Cover [mm]	Pipes DN [mm]
2.200	3	7300075900	2090 x 1400 x 2100	Ø600	110
3.000	6	7300075910	2560 x 1400 x 2100	Ø600	125
3.500	10	7300072880	2190 x 1800 x 2600	Ø600	160
5.000	15	7300075930	2660 x 1800 x 2600	Ø600	200
6.000	20	7300072710	3030 x 1800 x 2600	Ø600	200
8.000	30	7300072720	2870 x 2300 x 2850	1xØ600, 1xØ400	250
10.000	40	7300072740	3330 x 2300 x 2850	1xØ600, 1xØ400	250
12.000	50	7300072770	4360 x 2300 x 2850	1xØ600, 1xØ400	315
16.000	65	7300072050	5030 x 2300 x 2850	1xØ600, 1xØ400	315
22.000	80	7300072940	6470 x 2300 x 2850	2xØ600	315
25.000	100	7300074220	7650 x 2300 x 2850	2xØ600	315
30.000	125	7300072070	8830 x 2300 x 2850	2xØ600	400
35.000	150	7300072850	10170 x 2300 x 2850	2xØ600	400
40.000	200	7300072860	11350 x 2300 x 2850	2xØ600	400
45.000	250	7300072870	12790 x 2300 x 2850	2xØ600	400
50.000	300	7300072090	13600 x 2300 x 2850	2xØ600	400



NS3



NS15



NS30



RoPetrol

oil separators

- Class I coalescing separators do not exceed the hydrocarbon concentration of 5 mg/l.
- ROTO oil separator is equipped with coalescent filter, automatic closure devices (on the inflow) and/or electronic warning system.
- Coalescent filters are connected on the wall and can be easily cleaned and replaced.
- The tank is made from special conductive polyethylene.
- Oil separator RoPetrol can be installed inside ex zones.



Volume [L]	NS [L/s]	Code	Dim. A x B x C [mm]	Cover [mm]	Pipes DN [mm]
5.000	10	7300072758	2660 x 1800 x 2600	Ø250, Ø400, Ø600	200
6.000	15	7300075998	3030 x 1800 x 2600	Ø250, Ø400, Ø600	200
8.000	20	7300075888	2870 x 2300 x 2850	Ø250, Ø400, Ø600	250
10.000	30	7300072738	3330 x 2300 x 2850	Ø250, Ø400, Ø600	250
12.000	40	7300072788	4360 x 2300 x 2850	Ø250, Ø400, Ø600	315



NS15



NS20



Rosep

oil separators

bypass 10%

- Bypass separators fully treat all flows generated by rainfall rates of up to 6.5mm/hr. (99% of all rainfall events).

These separators are used on parking area when it is considered an acceptable risk not to provide full treatment for high flows, for example where the risk of a large spillage and heavy rainfall occurring at the same time is small.



automatic closure



coalescent filter



inside by-pass

Volume [L]	NS [L/s]	Code	Dim. A x B x C [mm]	Cover [mm]	Pipes DN [mm]
2.200	30/3	7300068900	2110 x 1400 x 2100	Ø600	200
2.600	50/5	7300068910	2430 x 1400 x 2100	Ø600	250
3.000	80/8	7300068980	2680 x 1400 x 2100	Ø600	250
3.500	100/10	7300068920	2290 x 1800 x 2600	Ø600	315
5.000	150/15	7300068930	2660 x 1800 x 2600	Ø600	400
6.000	200/20	7300068940	3030 x 1800 x 2600	Ø600	400
8.000	250/25	7300068610	3070 x 2300 x 2850	Ø600, Ø800	400
10.000	300/30	7300068950	3330 x 2300 x 2850	Ø600, Ø800	500
12.000	400/40	7300068960	4150 x 2300 x 2850	Ø600, Ø800	500
16.000	500/50	7300068970	6430 x 2300-2850 x 2850	Ø600, Ø800, Ø250	600 z.
22.000	650/65	7300068560	7870 x 2300-2850 x 2850	2xØ600, Ø800	600 z.
25.000	800/80	7300068570	8950 x 2300-2870 x 2850	2xØ600, Ø800	600 z.
30.000	1000/100	7300068580	10080 x 2300-3380 x 2850	2xØ600, Ø800	800 z.



NS 10/100



Rosep

oil separators

bypass 20%

- Bypass separators fully treat all flows generated by rainfall rates of up to 6.5mm/hr. (99% of all rainfall events).

These separators are used on parking area when it is considered an acceptable risk not to provide full treatment for high flows, for example where the risk of a large spillage and heavy rainfall occurring at the same time is small.



inside by-pass



automatic closure



coalescent filter

Volume [L]	NS [L/s]	Code	Dim. A x B x C [mm]	Cover [mm]	Pipes DN [mm]
2.200	15/3	7300068800	2110 x 1400 x 2100	Ø600	200
3.000	30/6	7300068810	2680 x 1400 x 2100	Ø600	200
3.500	50/10	7300068500	2290 x 1800 x 2600	Ø600	250
5.000	80/16	7300068820	2760 x 1800 x 2600	Ø600	315
6.000	100/20	7300068840	3130 x 1800 x 2600	Ø600	315
8.000	150/30	7300068850	2820 x 2300 x 2850	Ø600	400
10.000	200/40	7300068860	3230 x 2300 x 2850	Ø600, Ø800	400
12.000	250/50	7300068870	3760 x 2300 x 2850	Ø600, Ø800, Ø250	400
16.000	325/65	7300068830	4840 x 2300 x 2850	Ø600, Ø800, Ø250	400
22.000	400/80	7300068880	6470 x 2300 x 2850	2xØ600, Ø800	500
25.000	500/100	7300068890	8750 x 2300-2730 x 2850	2xØ600, Ø800	600 z.
30.000	650/125	7300068510	9830 x 2300-2730 x 2850	2xØ600, Ø800	600 z.
35.000	700/150	7300068520	11570 x 2300-2850 x 2850	2xØ600, Ø800	600 z.
40.000	1000/200	7300068530	12550 x 2300-2850 x 2850	2xØ600, Ø800	800 z.



NS 40/200

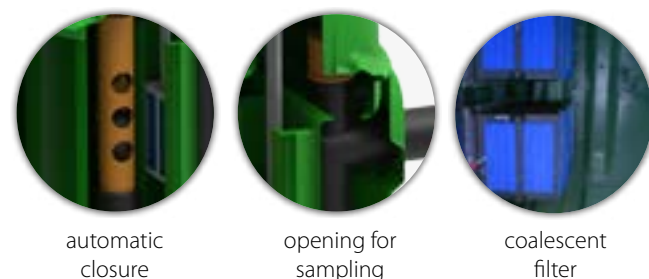


Rooil

fuel/oil separators

class I

- All light liquid separators are supplied for underground installation
- There are suitable sampling chambers and alarm equipment available in the range for all nominal sizes.
- Leak-tightness up to ground level guaranteed.
- Low servicing costs thanks to easy-clean inside surface. Due big opening, the coalescent filter can be removed and cleaned easily.

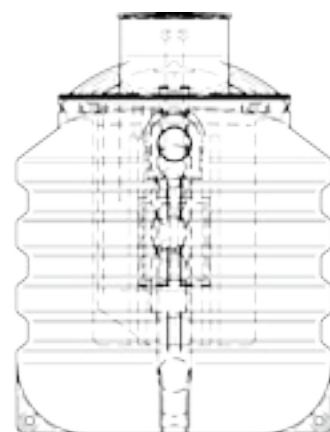
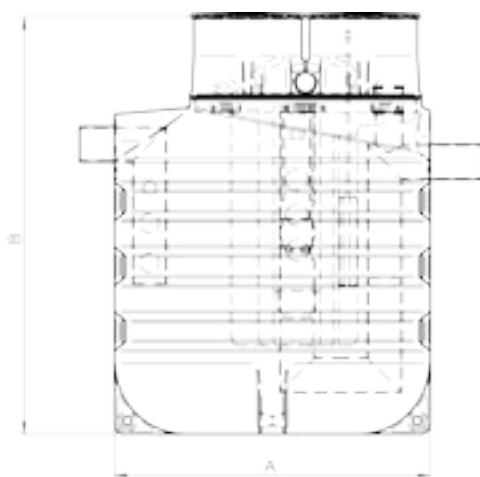


automatic closure

opening for sampling

coalescent filter

Volume [L]	Flow rate [L/s]	Code	Dim. A x B [mm]	Pipes DN [mm]
1.200	1,5	7300775940	Ø1300 x 1500	110
1.500	3	7300775950	Ø1300 x 1750	110
1.700	6	7300775970	Ø1300 x 2000	125
2.350	10	7300772750	Ø1500 x 2150	160
2.700	15	7300775990	Ø1500 x 2400	200
4.000	20	7300775880	Ø1800 x 2350	200
6.000	30	7300772730	Ø2300 x 2350	250
7.500	40	7300772780	Ø2300 x 2700	315
10.000	50	7300772760	Ø2300 x 3400	315

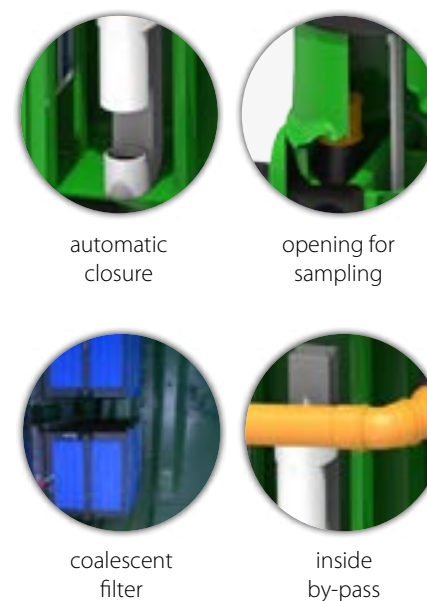


Rooil

fuel/oil separators

bypass 10%

- These separators are used when it is considered a risk not to provide full treatment for high flows, for example like large spillage and heavy rainfall occurring at the same time.
- Robust polyethylene construction for long life, compact vertical design for ease of handling, installation and maintenance.
- Contractor friendly bypass connections for different pipe diameters
- Oil residue and sludge are easily and quickly removed



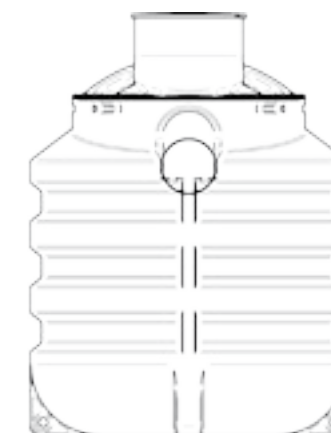
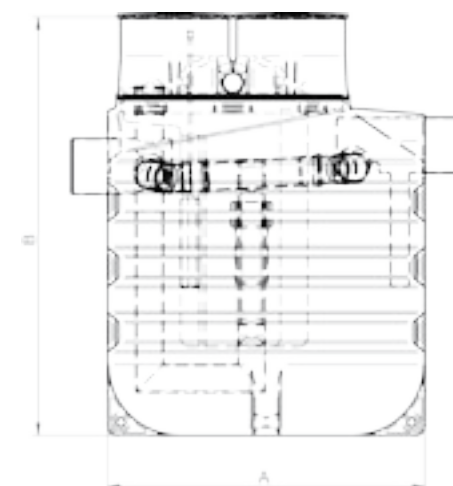
automatic closure

opening for sampling

coalescent filter

inside by-pass

Volume [L]	Flow rate [L/s]	Code	Dim. A x B [mm]	Pipes DN [mm]
1.500	15/1,5	7300768820	Ø1300 x 1750	200
1.700	30/3	7300768900	Ø1300 x 2000	200
2.700	50/5	7300768970	Ø1500 x 2400	250
3.200	80/8	7300768980	Ø1800 x 2000	315
4.000	100/10	7300768920	Ø1800 x 2350	315
6.000	150/15	7300768930	Ø2300 x 2350	400
7.500	200/20	7300768940	Ø2300 x 2700	400





RoOil

fuel/oil separators

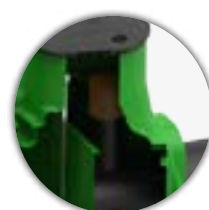
bypass 20%

• These separators are used when it is considered a risk not to provide full treatment for high flows, for example like large spillage and heavy rainfall occurring at the same time.

• Robust polyethylene construction for long life, compact vertical design for ease of handling, installation and maintenance

• Contractor friendly bypass connections for different pipe diameters

• Oil residue and sludge are easily and quickly removed



opening for sampling



coalescent filter

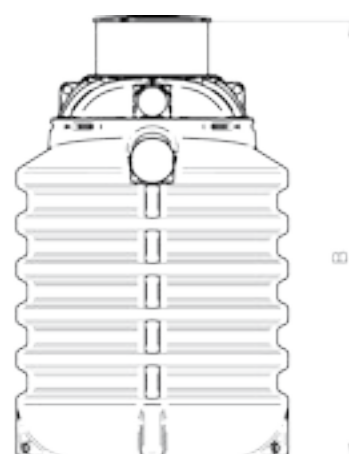
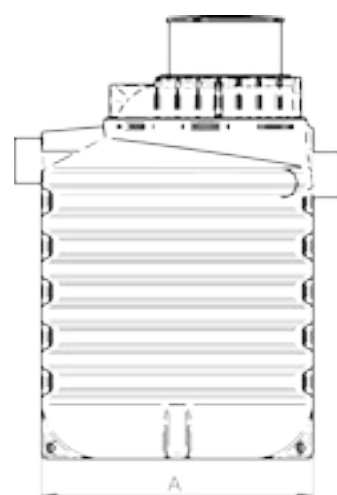


automatic closure



inside by-pass

Volume [L]	Flow rate [L/s]	Code	Dim. A x B [mm]	Pipes DN [mm]
1.500	15/3	7300768800	Ø1300 x 1750	200
1.700	30/6	7300768810	Ø1300 x 2000	200
2.350	40/8	7300768960	Ø1500 x 2150	250
2.700	50/10	7300768500	Ø1500 x 2400	250
4.000	75/15	7300768880	Ø1800 x 2350	315
6.000	100/20	7300768840	Ø2300 x 2350	315
7.500	150/30	7300768520	Ø2300 x 2700	400
8.700	200/40	7300768530	Ø2300 x 3000	400



references



ACCESORIES

Alarm equipment

Separators should be provided with a visual and audible oil alarm. This operates when the oil level reaches 90% of the oil storage volume and indicates that the separator needs immediate emptying for it to continue to work effectively.



Sampling shaft

Sampling Shaft makes it possible to monitor the quality of the water on outflow.



Telescopic measuring stick

Telescopic measuring stick "BASIC" with water paste (until 3m) – to control the oil level



Manual measuring kit

Manual measuring kit for oil and sludge (until 6,5 m) kit contains: sampling stick, measuring tape, carrying bag and cleaning towel



Manual level meter

Manual level meter integrated on automatic closing device



Automatic closure device

Depends of the type and purpose of use, Roto install automatic closure device by inlet or outlet. ROTO light fluid separators are equipped as standard with a automatic closure devices. When the maximum oil storage volume is exceeded, it closes the outlet into the drainage system and prevents the escape of light fluids into the drainage system. The automatic closure device is an emergency closure valve. When it is closed, the oil must be emptied from oil separator.

ACD until inflow pipes DN160



ACD over inflow pipes DN200



SEWAGE

CABEL

WATERMETER

GRAVITY SHAFT

SHAFTS



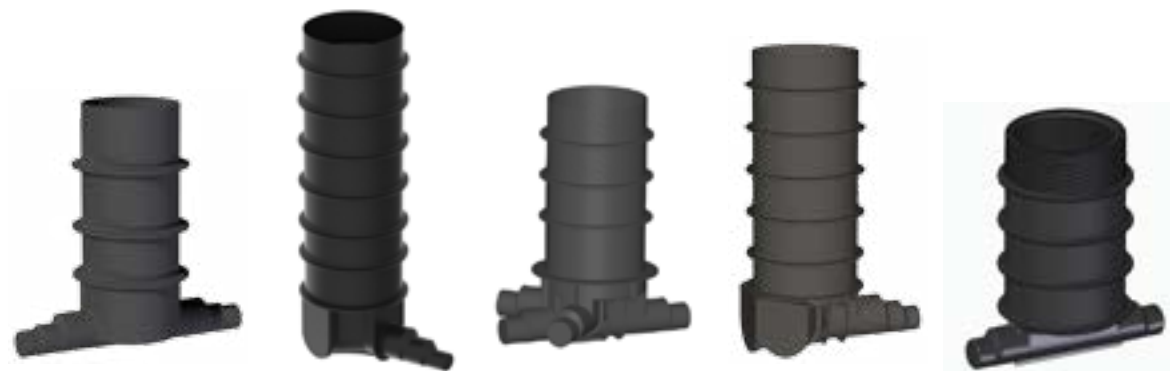
sewage shafts

DN 400/DN 500/DN 600

- Shafts are manufactured in one piece, which ensures the highest possible level of tightness.
- On entry and exit pipes are prepared – no joints for PE, PP and PVC smooth or ribbed tubes of different dimensions.
- Durability, long life, waterproof, resistance,
- Fast, easy installation, comprehensive solution, adjusting heights
- Low weight, and therefore they can be easily transported,



Diameter [mm]		Pipes [mm]	Height [mm]
Ø400	1→1	Ø110, Ø125, Ø160	1000 - 1500
Ø500	3→1	Ø110, Ø160, Ø200	1000 - 2000
Ø600	1→1 and 3→1	Ø160, Ø200, Ø250, Ø315	1000 - 2000
Ø640	1→1	Ø160, Ø200, Ø250	1000 - 2000



Ø400 and Ø600 1/1 Ø500 3/1 Ø600 3/1 Ø600 3/1 Ø640 1/1



sewage shafts

DN 800/DN 1000

- Shafts are manufactured in one piece, which ensures the highest possible level of tightness.
- On entry and exit pipes are prepared – no joints for PE, PP and PVC smooth or ribbed tubes of different dimensions.
- Durability, long life, waterproof, resistance,
- Fast, easy installation, comprehensive solution, adjusting heights
- Low weight, and therefore they can be easily transported,



Diameter [mm]		Pipes [mm]	Height [mm]
Ø800	1→1 and 3→1	Ø160, Ø200, Ø250, Ø315, Ø400, Ø500, Ø600	1000 - 6000
Ø1000	1→1 and 3→1	Ø160, Ø200, Ø250, Ø315, Ø400, Ø500, Ø600, Ø800, Ø1000	1000 - 6000



Ø800 Ø1000 Ø1000



manhole with flat bottom

DN 800/DN 1000

- Manhole base has double wall, produced with rotomoulding technology.
- Manhole base is designed to provide the smooth flow.
- Option – connecting of the pipe with adapter to diameter DN 400.
- Additional option of connections to different sizes.
- Three inflow, one outflow – 3/1
- Left connection
- Right connection
- Other options.
- With suitable adapters is possible to connect diferent pipes (PVC, PP, PEHD, GRP, idr.)
- Vertical manhole sections is from ribbed pipes or from manhole sections produced by rotomoulding technology.
- On the top of the shaft is PE cone with opening DN 600.
- Shafts are produced according to the standard EN 13598-2 and EN 476.
- Smooth surface from outer and inner side
- High flexibility and shock resistant.
- Homogen structur.
- Shaft is resistable on inner pressures



Ø800

Ø1000

Diam. [mm]	Height [mm]
Ø800	1200 - 6000
Ø1000	1200 - 6000

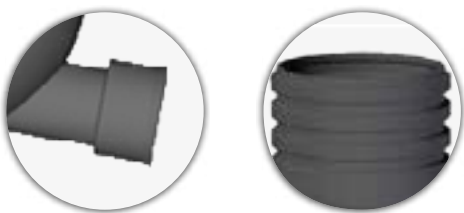


Connections for corrugated and PVC pipes from DN 200 to DN 400



gravity rush shafts and sand traps

- Shafts are manufactured in one piece, which ensures the highest possible level of tightness.
- On entry and exit pages are prepared – no joints for PE, PP and PVC smooth or ribbed tubes of different dimensions.
- Durability, long life, waterproof, resistance,
- Fast, easy installation, comprehensive solution, adjusting heights
- Low weight, and therefore they can be easily transported,



Diameter mm]	Height[mm]
Ø400	1000 - 1500
Ø500	1000 - 1750
Ø600	1000 - 3000
Ø800	1000 - 3000
Ø1000	1000 - 3000
Ø1200	1000 - 3000



Ø400

Ø800

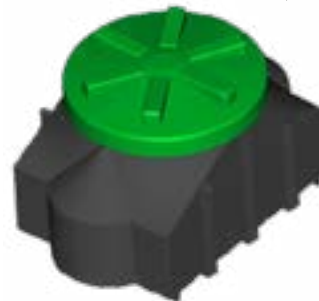
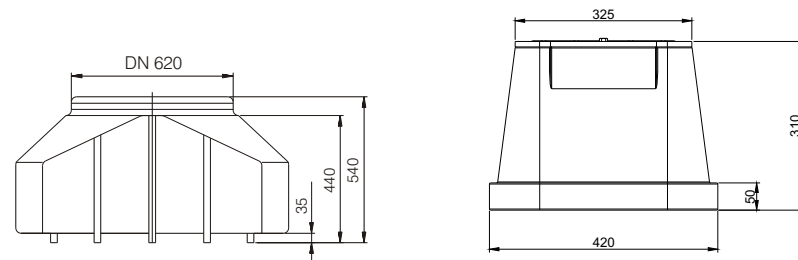
Ø1000

Ø1200



cabel shafts

- Shafts are made of environmentally friendly polyethylene, which is suitable for fecal and clean water. Polyethylene cabel shaft is used for the construction of a cabel system. Its advantages include high tensile hardness. Due to their light weight, the shafts are easy to transport and install. It is simple to drill a hole in the plastic wall and install rubber seals and pipes Φ 50, Φ 100, Φ 125.

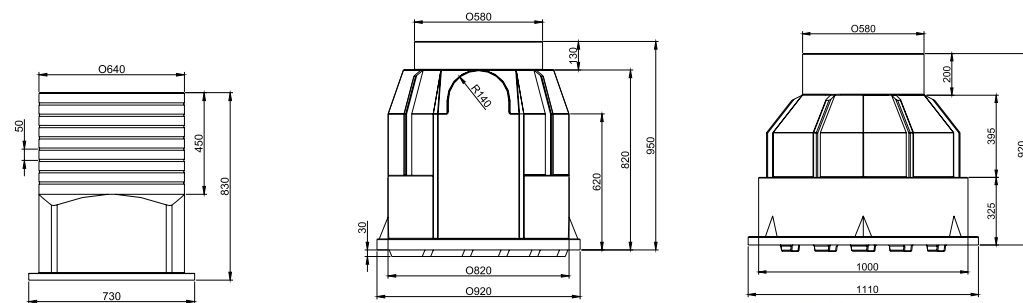


SM1



MPKJ

Product	Code	Dimension [mm]
PKJ Ø600	7483	Ø600x830
PKJ Ø800	7326	Ø800x950
PKJ Ø1000	7530	Ø1000x950
SM1	7433	820x640x540
MPKJ	7328	415x550x310



PKJ Ø600



PKJ Ø800

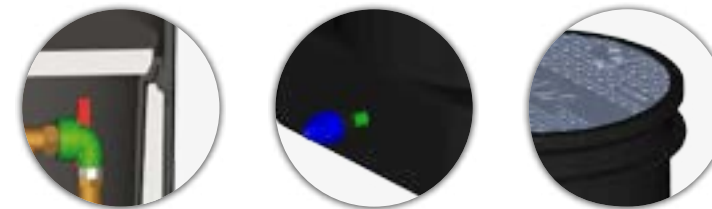


PKJ Ø1000



watermeter shafts

- Polyethylene watermeter shafts are reliable, efficient and cost-effective alternative to concrete shafts or pipes.
- Shaft is covered with a plastic lid or with a cast-iron cover.
- Inside the shaft is installed EPS isolation cover.
- Thermal isolation in the walls protects the shaft frost in the coldest winter days.
- Because of big cover it is easy to access and replace the water-meters without excavation of the shaft.
- Strong ribs prevent deformation of the shaft.



Product	Code	Dimension [mm]	Water-meter
Water-meter shaft	5799	Ø600x1000	1 or 2





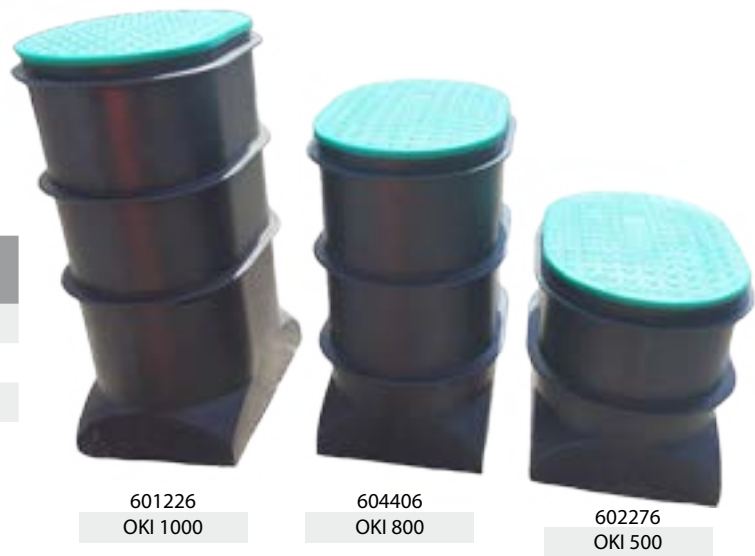
water shafts

- Easy replacement and access.
- The possibility of subsequent replacement of the lid.
- Option to switch water meter unit without excavation of shaft.
- Strong ribs prevent deformation of the shaft.
- The design protects against frost in the coldest winter days.



5808
ROTO Ø1000

Product	Code	Dimension [mm]	Water-meter
ROTO 1000	5808	Ø1000 x 1250	od 1 do 4



601226
OKI 1000

604406
OKI 800

602276
OKI 500

references





RoPump *pumping station*



86



SEWAGE

CANAL WATER SUPPLY

PUBLIC WATER SUPPLY

DOMESTIC

PUMPING STATIONS



RoPump

pumping station - single pump

Ø625, 800, 1000, 1300 mm

- Adaptive telescopic extension
- The pumping stations are available as a single station for distribution of clean or waste water.
- Fast installation thanks to high degree of pre-fabrication and simple connection using fixed connecting pieces for inlet.
- Our range includes a series of compact pump systems. Quick to install and easy to maintain, they're the ideal solution for outbuildings and extensions, cellars, pool houses and external toilets. They can be used for effluent or sewage, depending on the pump, distance and height.
- Compact system consist of chamber fitted with high quality pump, float switch, non-return valves, pedestrian duty cover.

Features:

- non-return valves and outlet pipe compression coupling as standard
- 3 pump options
- services and maintainance plans available to prolong the life of the pump systems,
- complete pre-fabricated solution ready for installation,
- fully automatic.

Key factors to size your system:

- application: domestic, residential or commercial
- material application: sewage, effluent or surface water
- inlet depth (below ground level)
- pumping distance and lift
- electrical supply

GENERAL PUMP GBP 2115

Product	Code	Dimension A x H (mm)
RoPump 625x1000, 1/GBP2115	7700001051	625x1000
RoPump 625x1500, 1/GBP2115	7700002051	625x1500
RoPump 800x1000, 1/GBP2115	7700003051	800x1000
RoPump 1000x1000, 1/GBP2115	7700004051	1000x1000
RoPump 1300x1250, 1/GBP2115	7700005051	1200x1250

PENTAX DG 82 G

RoPump 625x1000, 1/DG 80 G	7700001061	625x1000
RoPump 800x1000, 1/DG 80 G	7700003061	800x1000
RoPump 1000x1000, 1/DG 80 G	7700004061	1000x1000
RoPump 1300x1250, 1/DG 80 G	7700005061	1200x1250

PENTAX DG 102 G

RoPump 625x1000, 1/DG 100 G	7700001041	625x1000
RoPump 800x1000, 1/DG 100 G	7700003041	800x1000
RoPump 1000x1000, 1/DG 100 G	7700004041	1000x1000
RoPump 1300x1250, 1/DG 100 G	7700004042	1200x1250

GENERAL PUMP GBP 2115 with guide and guide rail

RoPump 1000x1000, 1/GBP 2115	7730004051	1000x1000
RoPump 1300x1250, 1/GBP 2115	7730005051	1200x1250



Pumping station DN800

Pumping station DN1000

Pumping station DN1200



RoPump

pumping station - twin pumps

Ø625, 800, 1000, 1300 mm

- Adaptive telescopic extension
- The pumping stations are available as a single station for distribution of clean or waste water.
- Fast installation thanks to high degree of pre-fabrication and simple connection using fixed connecting pieces for inlet.
- Our pumping stations are ideal for homes or properties. Quick and simple to install, they require minimal maintenance. They come with twin pumps, and are suitable for sewage, surface water and effluent. Appropriate for 24 hour storage requirements.
- Our domestic pumping stations are made with super-tough, low maintenance and high quality parts and fittings and come with options of monitoring systems.

Features:

- quick connection outlet couplings,
- 110 mm or 160 mm inlet connections,
- easy acces for maintenance,
- service and maintenance plans available to prolong the life of the pump systems

Key factor to size your system:

- application: domestic, residential or commercial
- material application: sewage, effluent or surface water
- inlet depth (below ground level)
- pumping distance and lift
- electrical supply

GENERAL PUMP GBP 2115

RoPump 800x1000, 2/GBP2115	7700003052	800x1000
RoPump 1000x1000, 2/GBP2115	7700004052	1000x1000
RoPump 1300x1250, 2/GBP2115	7700005052	1200x1250

PENTAX DG 82 G

RoPump 1000x1000, 2/DG 80 G	7700004062	1000x1000
RoPump 1300x1250, 2/DG 80 G	7700005062	1200x1250

PENTAX DG 102 G

RoPump 1000x1000, 2/DG 100 G	7700005041	1000x1000
RoPump 1300x1250, 2/DG 100 G	7700005042	1200x1250

GENERAL PUMP GBP 2115 with guide and guide rail

RoPump 1000x1000, 2/GBP 2115	7730004052	1000x1000
RoPump 1300x1250, 2/GBP 2115	7730005052	1200x1250

DAB FEKA VS 550 with base and guide rail

RoPump 1000x1000, 2/VS550	7730004072	1000x1000
RoPump 1300x1250, 2/VS550	7730005072	1200x1250

DAB FEKA VS 750 with base and guide rail

RoPump 1000x1000, 2/VS750	7730004082	1000x1000
RoPump 1300x1250, 2/VS750	7730005082	1200x1250

DAB FEKA VS 1000 with base and guide rail

RoPump 1000x1000, 2/VS1000	7730004092	1000x1000
RoPump 1300x1250, 2/VS1000	7730005092	1200x1250



Pumping station
DN1000



Pumping station
DN1200



Pumping station
DN800



Pumping station
DN1000



RoPump

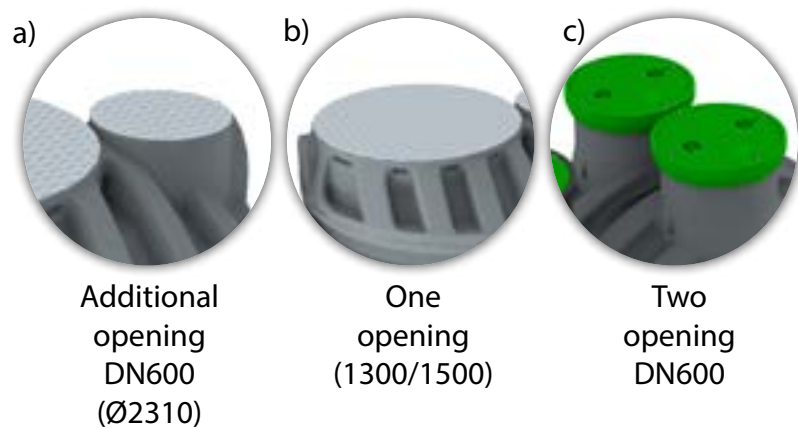
pumping stations

Ø1300, 1500, 1800, 2300 mm

- The upper part of the tank can have one large or two separate openings with covers DN600, depends on how many pump you would like to install.
- The bottom of the tank has places for anchoring in case of ground water.
- Simple installation thanks to the low weight of the tank/ shaft components and easy connection technique.
- Long-term reliability thanks to the absolutely water-tight chamber system which is resistant to sedimentary deposits and aggressive media as well as root infiltration.
- Simple pump servicing through openings.



OPTION OPENINGS



RoPump

additional equipment

Alarm



Basket



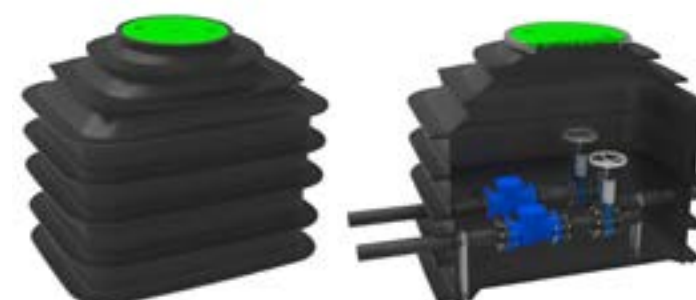
Additional extension



Control panel



Shaft for fittings

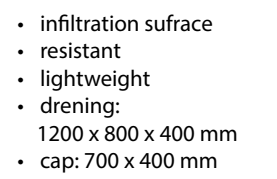


Cabinet for control panel

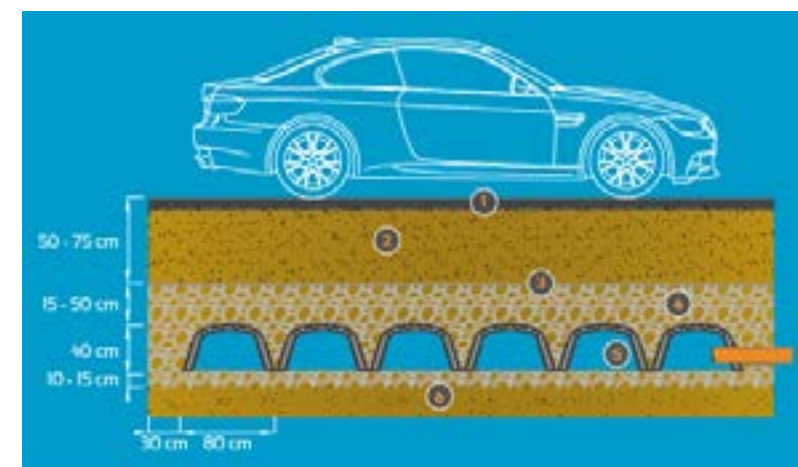




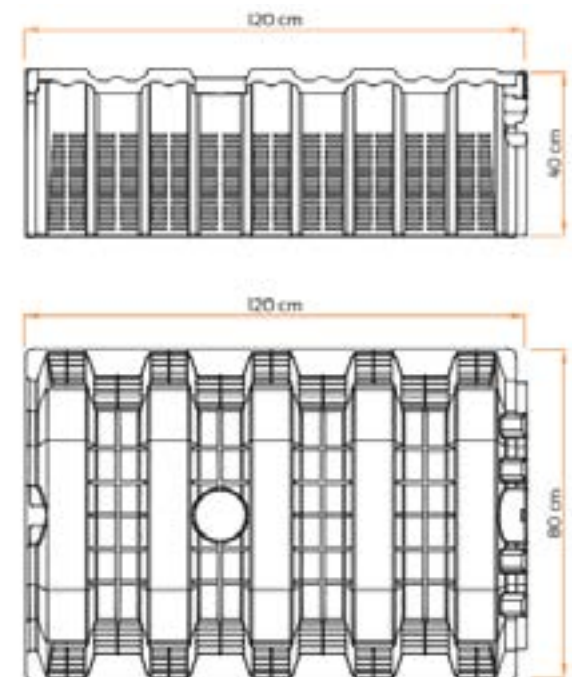
Drening



- Draining is made of HDPE (high density regenerated polyethylene)
- Draining is a modular element.
- It is designed for the creation of underground retention ponds used
- for "in-situ" rainwater management.



- | | |
|------------------|-------------------|
| 1 Road finishing | 4 Washed gravel |
| 2 Covering | 20/40 mm |
| 3 Geotextile | 5 Draining |
| | 6 Existing ground |

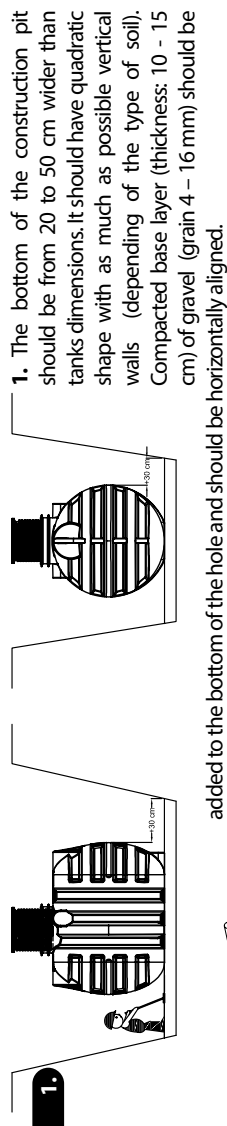


INSTALLATION INSTRUCTION FOR TANKS

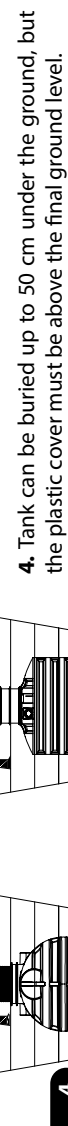
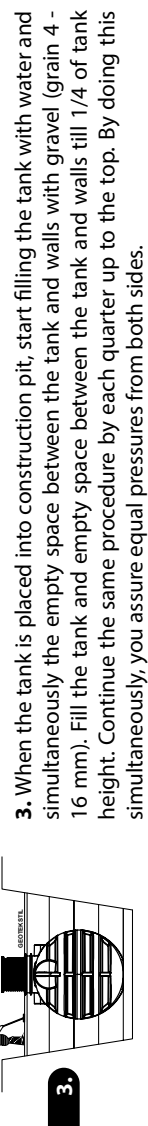
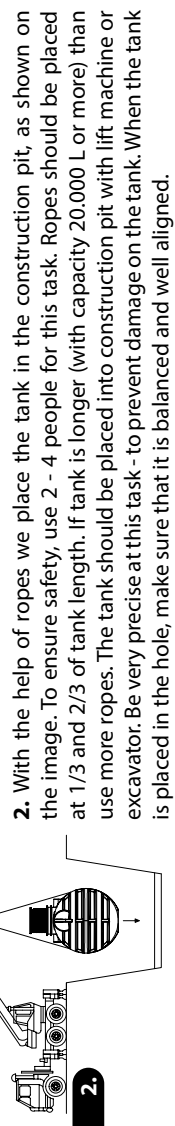


Tanks are intended for rainwater, waste and fresh water storage. They are made of polyethylene, material, which is suitable for storing drinking water. Tanks walls are between 8 and 14 mm thick. Horizontal tanks are designed to be buried in the ground. We also have vertical tanks RoCko which can be placed above the ground.

INSTRUCTIONS



added to the bottom of the hole and should be horizontally aligned.



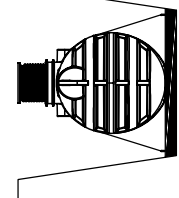
Rocko

Rottera

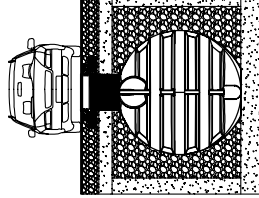
WARRANTY

The product will work flawless as long as you follow instructions above. Warranty covers all components in the system (eg. septic tank, grease traps, oil separator, etc.). Guarantee for mechanical system parts is valid for two years and guarantee for waterproofness or stability of tanks is 60 months. Guarantee is valid from the date of purchase except. Warranty is attested with both sellers and manufacturers signature and a purchase date. Claim record sand damage assessments are performed by the manufacturer. Warranty does not cover any damage caused by incorrectly construction pits (follow the instructions above). Tanks are not meant to store any types of oil, sand, oil derivatives.

SPECIAL BURROWING

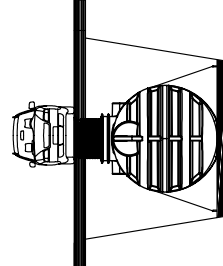


GROUNDWATER: If there is a chance of high groundwater, build a reinforced concrete slab at the bottom of the construction pit (around 25 cm thick, with concrete mark C 25/30). Into concrete slab place anchors bolts with tall collar lifting eye (anchors should be placed at 1/3 and 2/3 of tank length). Tank should be affixed with polyester tow rope. When the tank is fixed, fill the empty space between the tank and walls with concrete to the max. level of groundwater.



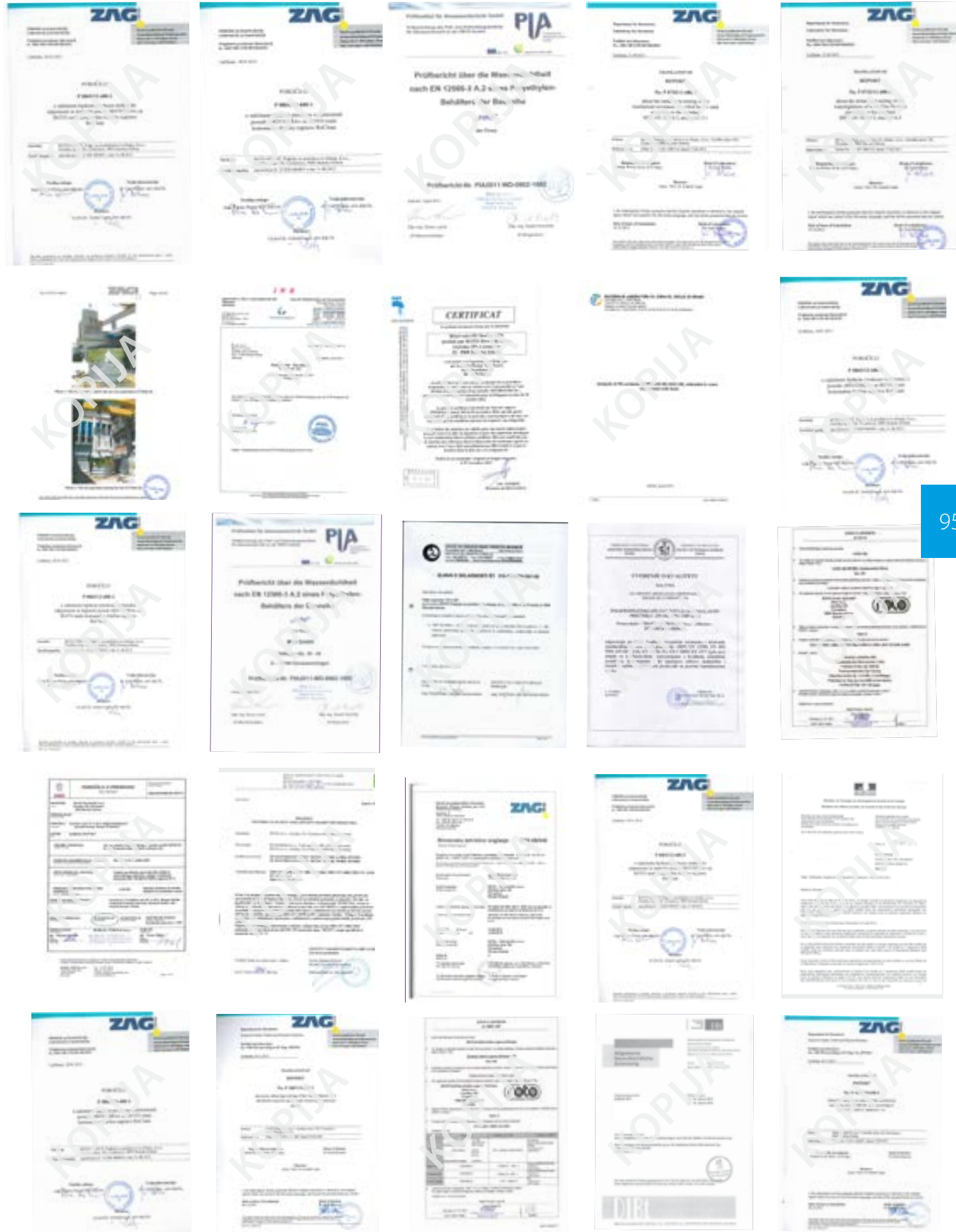
NON WATER PARAMBLE SOILS (COHESIVE SOILS): If we intend to install the tank on a non water permeable terrain (cohesive soils: clay, clayey, silt) we need to make a drainage and route water to lower levels. Otherwise the water can cause additional pressure on the tank.

SLIDING TERRAIN: If we intend to install the tank on a sliding terrain, we have to build a reinforced concrete wall to block additional pressures on tank (dimension set by static engineer).



TRAFFICABLE SURFACES: If you want surface above the tank to be used as a trafficable area, you need to build reinforced concrete slab to prevent additional pressure on tank (dimension set by static engineer). Plastic cover has loading capacity up to 0.2 kN/m². If this is not enough, you can place a cast iron cover instead. The ground above the tank should not be used as a trafficable area (by default).

DEEP BURROWING: When we want to bury the tank deeper (from 50 to 100 cm above the tank), we need to build reinforced concrete slab (dimension set by static engineer) across the surface in a way that soil do not cause additional pressure on tanks. If we bury tank deeper than 50 cm, we need to install PE shafts (diameter of 800 mm) on inspection openings.





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