ECOLOGY AND ECONOMY FOR EVERYONE





WASTEWATER Delfin SYSTEMS



MEET DELFIN COMPANY

If you think about purchasing a home wastewater treatment plant or a hydrocarbon and fat separator DELFIN company certainly meets your needs. The company headquarters is located in south Poland, in an area adjacent to forest; hence it is close to nature both by location and business profile. DELFIN business, since its beginnings in 1993, has always been focused on care for customers and the environment.

DELFIN COMPANY OFFERS

- home wastewater treatment plants
- hydrocarbon and fat separators
- rainwater storage tanks



The company is one of the most modern manufacturer of polyethylene containers in Poland thanks to the most innovative production lines using the rotational moulding technology. The lines are fully-automatic and allow wasteless production protecting the environment also by significant reduction of energy consumption during the manufacturing process. In order to provide high-quality products DELFIN created its own laboratory equipped with innovative, precise measuring devices for carrying out wastewater analyses and controlling wastewater treatment plant operations.

TOP QUALITY PRODUCTS

The home wastewater treatment plants manufactured by DELFIN acquired the CE sign and technical approvals of the Institute of Environmental Protection confirming that the products meet the highest European standards. Our products have 10 years guarantee!



Delfin

INNOVATION

ECOLOGY

ECONOMY

RESPONSIBILITY

DOMESTIC WASTEWATER TREATMENT PLANTS

DELFIN offers various types of wastewater treatment plants depending on the ground permeability and level of underground water as well as used technology. Wastewater gets from your house to the wastewater treatment plant and then, as clean water, it gets to the ground. No extra devices, transport and effort. If everything could be that simple...

SAVE YOUR TIME AND MONEY!

Removal of waste from the plant's tank takes place only once a year. And how often do you need to empty a septic tank? A comparison of costs for a customer using a wastewater treatment plant and a septic tank definitely gives DELFIN products an edge. Numbers do not lie - you save money by investing in wastewater treatment plants.

BENEFITS FOR YOU AND FOR THE ENVIRONMENT

Thanks to the combination of the highest technology, top-quality materials and pro-ecological company policy, everyone who purchases DELFIN plant helps themselves and the environment.

DELFIN wastewater treatment plants, if chosen and maintained properly, are a solution for many years. Solution right for you!





DELFIN PREMIUM WASTEWATER TREATMENT PLANTS

Every model of **DELFIN PREMIUM** wastewater treatment plants operates on the basis of a gravitational flow of wastewater in two stages:

Oxygen-free stage - septic tank. The processes of sedimentation and flotation of pollutants take place there. Light substances such as fats float at the surface, heavier substances are deposited at the bottom.



Oxygen stage – filtering-off drainage system. Wastewater is purified in physical, chemical and biological ways during the process of percolating through the soil. Treated water can be collected by the ground, a melioration trench or a waterhole.

CHOOSE THE MODEL RIGHT FOR YOU

Drainage - a system of perforated drain pipes placed underground on a gravel layer, where the proper fine treatment of wastewater takes place. Suitable for houses located in the area of good ground permeability (like sand) and low level of underground water.

Drainage package - for houses located in the area of very good ground permeability and low level of underground water (5 times smaller area is needed comparing to typical drainage).

Vertical drains - artificially created drainage paths for houses located in the area where ground is impermeable (consisted mostly of loam and clay). Wastewater can be collected by a river, a melioration trench, a waterhole or an absorbing well.

Drainage in bank - for houses located in the area of good ground permeability and high level of underground water. The bank has to be at least 1.5 m higher than the level of underground water.

Technical approval: PN-EN 12566-1:2004/A1:200.



DELFIN PRO WASTEWATER TREATMENT PLANTS

DELFIN PRO wastewater treatment plants are perfect solution for customers who have limited space on their plot. Thanks to the latest technology only 2.17 sq. m. is required for the plant. The plant can be installed anywhere, no matter what the water-ground conditions are!

DELFIN PRO is a very efficient and resistant wastewater treatment system which can operate with low electrical energy consumption (0,72 kWh/d). That means lower cost for user. DELFIN PRO operates in a fully automatic mode thanks to professional control box with electrovalves and a time relay. There are two types of plants:

- DELFIN PRO Premium with the active slug
 DELFIN PRO MBBR with the MBBR technology



DELFIN PRO MBBR uses the MBBR – Moving Bed Biofilm Reactor - technology. The MBBR process is based on a biological film concept, the so cal-led biofilm, which grows on specially designed elements immersed in the reactor, e.g. the PEHD container. MBBR elements have been specially de-signed to create the possibly largest active area for the biofilm and optimum living conditions for different micro-organisms cultures.

DELFIN PRO is a three-chamber set:

Initial tank - the first stage is slumping of suspension and storage of deposit.

Aeration chamber - in the second chamber oxidation of chemical compounds with active slug takes place.

Secondary chamber - the last chamber is responsible for section sedimentation of the suspension - using active slug from wastewater.

Technical approval: PN-EN 12566-3:2007+A1:2009.



DELFIN SEPARATORS OF HYDROCARBONS AND FATS

DELFIN HD separators of hydrocarbons are the perfect solution for places where petroleum derivatives must be removed:

- petrol stations car washes
- reloading stations
- underground garages
- car parks
- underground gai
 car repair shops
- The separators are made of polyethylene, which guarantees long term usage and durability. Using DELFIN HD hydrocarbons separators is a low-cost and reliable way of handling with waste, which is a by-product at a car repair shop or a petrol station. And what is most important it is fully ecological!

Technical approval of Institute of Environmental Protection (AT/2007-08-0158/A1) Available models:

Model	Capacity	Rated flow
HD 3 PK	540 l	3 l/s
HD 5 PK	1400 l	5 l/s
HD 10 PK	2100 l	10 l/s
HD 15 PK	3300 l	15 l/s
HD 20 PK	4300 l	20 l/s

DELFIN SGD separators of fats are dedicated for:

- restaurants
- fast food bar
- hotels

The separators are applicable to every place where fats are processed and need to be removed in the process of waste treatment. Thanks to the fact that DELFIN separators are lighter and easier to transport then concrete separators our customers do not waste time and money on time-consuming groundworks.



Technical approval of Institute of Environmental Protection (AT/2007-08-0159/A1) Available models:

Model	Capacity	Rated flow
SGD 1,5 P	540 l	1,5 l/s
SGD 2 P	1000 l	2 l/s
SGD 4 P	1500 l	4 l/s
SGD 7 P	2100 l	7 l/s
SGD 10 P	3300 l	10 l/s
SGD 12 P	4300 l	12 l/s



DELFIN RAIN RAINWATER STORAGE TANKS

DELFIN RAIN rainwater storage tanks help to reduce water consumption up to 30%!

The stored rainwater can be used for:

- flushing toilets
- watering gardens
- washing cars

HOW DOES IT WORK?

Rainwater, pouring from the roof, is channelled by network of gutters to a rainwater tank. During that process any organic foulings (like e.g. leaves) are removed. Next, the rainwater flows through filters at a container frame and a strainer pot straight to the tank. The filters remove any organic and non-organic fouling (like e.g. sand). Rainwater collected in the tank is then channelled to toilets or watering devices. by a submersible pump or a hydrophore set. In case of lack of rainwater in the tank, water to a toilet is supplied from a water network or a well.

Available capacity:

- · 3000 l - 4000 l
- 5000 l

DELFIN RAIN - rainwater stora-ge tanks can be used regardless of ground-water conditions and they require a small area for in-stallation.

They become more and more popular not only due to increasing prices of water but also thanks to growing human care for our planet.

SAVE OUR NATURE BY REUSING THE RAINWATER!



WOULD YOU LIKE TO FIND OUT MORE ABOUT OUR OFFER? VISIT OUR WEBSITE: WWW.DELFIN-POLSKA.PL WE WILL BE HAPPY TO ANSWER YOUR QUESTIONS AND CHOOSE THE RIGHT SOLUTION FOR YOU. WE PROVIDE TRANSPORT SERVICE THROUGHOUT EUROPE.





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