

Waste - water  
treatment plants



# Waste-water treatment plants with fine-bubble aeration

## Container waste-water treatment plants ACB for 5 - 750 PE



## Waste-water technology for 1000 - 5000 PE

The activation plants ACB present a complex solution of waste water treatment for municipalities. The system is based on a biological principle of a low-load activation with a partial aerobic sludge stabilisation.

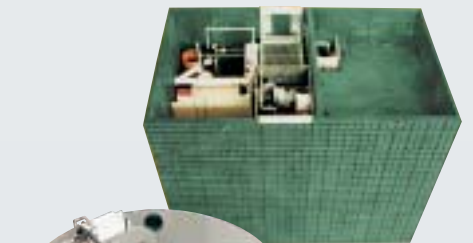
The container activation waste water treatment plants ACB fall into the most progressive up-to-dated technologies in the field of waste water treatment. They are supplied in the type series from 10 up to 750 PE. The aeration system FORTEX is applied. The plants may be completed with other technological equipments.

All plants designed by the company FORTEX comply with the international standards.



## Container waste-water treatment plants ACB-SBR for 10 - 180 PE

The container activation waste water treatment plants ACB-SBR (sequence batch reactor) are biological plants with a controlled intermittent operation. They are manufactured in the type series from 10 to 180 PE. The aeration system FORTEX is applied. The plants may be completed with other technological equipments.



**Complex deliveries and installation of the technological units for all sizes of WWTP**



# Supplementary technological devices

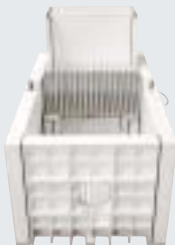
## Screen racks SC

The screen racks are integrated into the object of a mechanical precleaning. They are placed into the inlet channel or into the pumping station. They are used for the waste water treatment plants up to 5000 PE or for a maximum through-flow of 25 l/s.



## Manually wiped racks RC

The all-plastic manually wiped racks serve for a trapping the rough impurities incoming to the treatment plant. The manual racks may be used for the through-flow up to 20 m<sup>3</sup>/h.



## Vertical sand trap LPB

The vertical sand trap serves for a gravitation trapping and removal of sand from the sewage incoming to the treatment plant.



## Pumping stations CJB

The pumping stations are suitable in the cases where the gravitation sewerage cannot be constructed. The stations are equipped with one or two pumps with cutting device giving from 2,5 up to 54 m<sup>3</sup>/h. and a maximum transport height 50 m.



## Fat separator OTB

The two-level fat separator serves for trapping and removal of non-emulsible fats and vegetal oils in the waste water from kitchens and restaurants, meat and other producers, etc. It is used as a pre-treatment unit on the independent separate sewerage. The fat separators are manufactured in 5 sizes for through-flow of 1 - 5 l/sec. answering 200 - 1500 ready meals/day.



## Settlement tanks DN

The settlement tanks DN are vertical square tanks designed for the waste water treatment plants up to 5000 PE. They are placed after the activation section and serve for separation of the biological sludge in the WWTP and subsequently for its thickening and sedimentation.

The settlement tanks are equipped with a device removing the floating sludge from the water level assuring the appropriate outlet parameters.



## Measuring shafts MS

The through-flow measuring shaft with the Thomson's overflow serves for an instantaneous measurement of the flow and sampling of the water running out from treatment plants. The measuring shafts can be equipped with a flow - recording (MB) for registration of the through-flow. The shafts may be used for the through-flow up to 50 m<sup>3</sup>/h



## Sludge dewatering device OZK

The sludge dewatering device is designed for dewatering of the primary, stabilised or mixed sludge. It is a compact unit with special bags fixed to it. The device may be also used for dewatering of the sand. The unit may be used for the plants up to 1500 PE.



## Deodorant filters DF

The deodorant bio-filters establish 100% odour-free operation of the units. The series of the deodorant filters is designed for elimination or reduction of the odours arising during the operation of the waste water treatment plants or pumping stations. They enable to reduce significantly the zones of hygienic protection.



## Control systems MPC

The control systems FORTEX of the series MPC are used for operation control of small and medium waste water treatment plants. They enable to reduce the operation costs. At the same time they provide a higher efficiency and a smoother treatment process.



## Polypropylene tanks and septic tanks

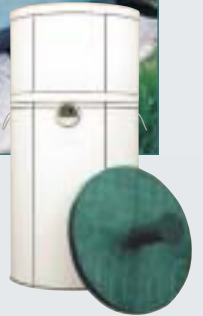
The polypropylene tanks are convenient for a general usage, especially in agriculture, chemical and industries. The shape and dimensions of the tanks, inner portion walls, inner constructions, drilling of openings completed with covers can be designed in accordance with the customer's wishes. The rectangular and the circular tanks can be used as sink holes and, after adaptations, as septic or pump tanks, etc.



# Bio-disc waste-water treatment plants



## BIOFLUID E



The all-plastic bio-disc waste-water treatment plants are designed for the treatment of the sewage water from family houses, flats, sanitary facilities, camps, hotels or parts of municipalities. They may be used for the treatment or after-treatment of other kinds of the biologically degradable waste water. The plants are manufactured in accordance with the Czech standards in 9 sizes from 10 up to 120 PE, alternatively in compliance with the DIN and

ÖNORM - Standards. The smallest waste water treatment plant Biofluid E5 consists of a tubular tank from polypropylene and is designed for 2 - 5 people equivalent. The advantages of the bio-disc treatment plants are low investment and operation costs, minimum demand on the service, reliable operation and simple construction works.

# Oil separators

## SOR. II

The oil separators of the type SOR. II are designed for the separation of oil from the heavy - polluted waste water. The separators are usually used for the waste water from technology cleaning and rain sewage from parking lots, lay-by areas up to the input pollution of 5000 mg/l.

They are supplied for the through - flow of 0,5 - 20 l/sec.

## SOR. II - ZP

The separators SOR.II-ZP for a higher through - flow are suitable for a gravitational separation of the oil products where the input pollution doesn't exceed 35 mg/l. Generally they are used for parking lots, pumping stations, lay-by areas.

The separators are supplied for through-flow of 10 - 100 l/sec.



# Aeration systems with diffusers AME



The FORTEX-AGS, a.s. disposes with a number of inventions and patent samples, especially in the field of the aeration systems reducing the operation costs of the waste water treatment plants.

The systems have been calculating with help of a special calculation program in compliance with the standards for „Waste water treatment plants for more than 500 equivalent people“



The aeration systems are used for the stirring and aeration of water in the activation and degasification tanks of the waste water treatment plants or for the aeration of other liquids, for the aeration of fish breeding facilities, ponds and water reservoirs or for a pneumatic floatation.

They are successfully used for reconstruction and intensification of the existing waste water treatment plants. The aeration grids may be equipped with various shapes of the AME - diffusers. The construction of the grids provides a fast assembly and a simple exchange of the diffusers even under operation.

The advantages of the usage of the aeration systems are significant energy savings, reliable operation and high long-term efficiency.



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