

# Anaerobic - aerobic domestic WWTP

**for cottages and other buildings of individual recreation, in case of sufficient hydraulic gradient without energy demand**

## Use

This treatment plant is best-fit for point pollution sources with high irregularity of hydraulic as well as mass loading (seasonal use of buildings).

## Supplies

are made in type-specific plastic reservoirs intended for installation into excavation pits to a foundation plate. The WWTP is dimensioned for backfilling, eventually concreting-in.



## Function description

WWTP AČB E 5 through 50 are manufactured in a type range of 7 sizes. Each size consists of a PP compact container divided into the separate functional areas by dividing walls.

The treatment plants consist of gradually through-flow sedimentation part where settleable solids (primary sludge) are removed. Then there is a two-stage anaerobic biofilter, which serves for removing the main portion of organics, and an aerobic biofilter for final aerobic treatment of anaerobic-treated waters. A sand gravel filter is installed for trapping suspended and colloidal materials and for stabilizing the drain (the filter may also be installed in a separate reservoir).

If this treatment plant is installed near recreation buildings in a hilly country and if it is possible to use ca. 0.75 m hydraulic gradient, then the treatment plant does not require any external energy sources, working solely on the gravitation principle. Where hydraulic gradient may not be used, the treatment plant drain is equipped with a shaft with a small pump for purified water.

Basic data								
Typ AN		5	10	15	20	30	40	50
No. of equivalent inhabitants	El	1 – 5	5 – 10	10 – 15	15 – 20	20 – 30	30 – 40	40 – 50
Waste-water quantity $Q_{24}$ - $Q_{max}$	$m^3/d$ $m^3/h$	0,75 0,42	1,5 0,8	2,25 1,1	3,0 1,3	4,5 2,0	6,0 2,5	7,5 3,0
Basic dimensions - length - width - height	m m m	2,1 1,1 2,4	2,4 1,8 2,4	2,4 2,4 2,4	2,4 2,8 2,4	2,4 4,2 2,4	2,4 5,4 2,4	2,4 6,8 2,4
Energy demand	KW/d	-	-	-	-	-	-	-
Weight	kg	200	350	500	950	1100	1200	1850

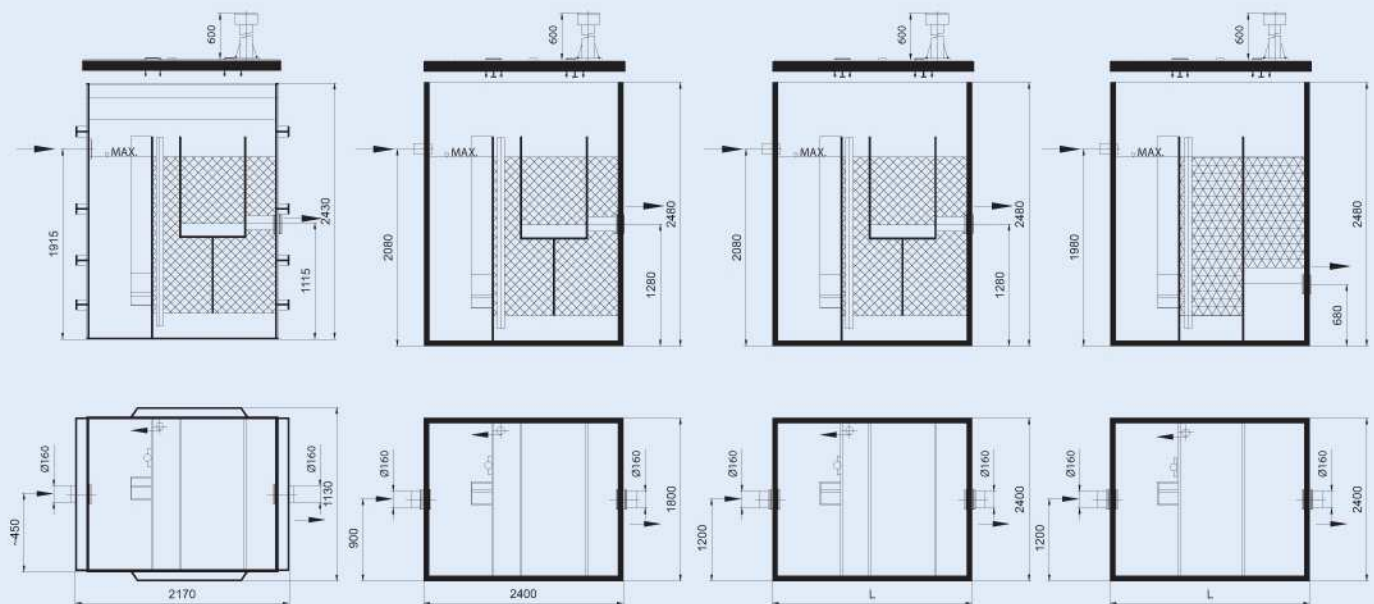
Treated water quality			
Indicator	Guaranteed values of soiling in outlet (mg/l) acc. to SO 61/2003 Coll.		Usually attained average values in outlet (mg/l)
	„p“	„m“	
BOD <sub>5</sub>	30	60	15 - 20
COD	125	180	65 - 90
Insoluble solids	35	70	15 - 20

AN 5

AN 10

AN 15-20

AN 30-50



### Advantages of WWTP AN 5 through 50

- Minimum (in case of keeping the hydraulic gradient between the inlet and drain of min. 0.75 m even zero) requirements external energy sources.
- Minimum formation of excess biomass (minimum costs of excess sludge disposal).
- Silent and trouble-free operation with minimum operating demands.
- Treatment plant compactness, low area demands.
- Simple installation.
- Constant and high cleaning efficiency.

Further information and designing bases are contained in the supplier's technical and delivery terms and conditions.



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