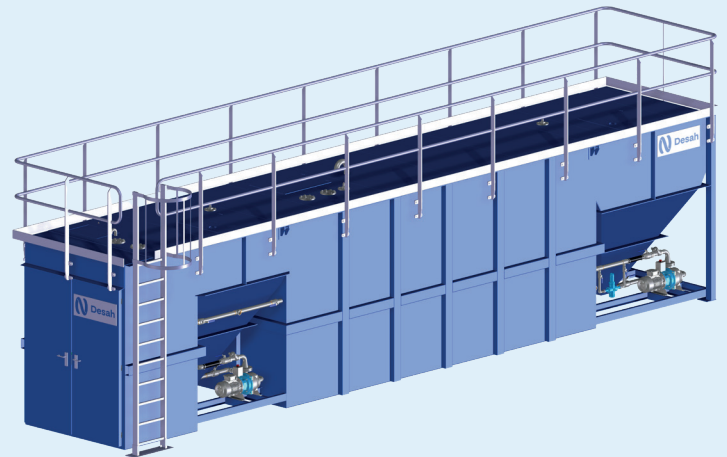


# Compact containerised wastewater treatment solution

Desah's containerised A-B solution is a decentralised, biological active sludge system housed in standard shipping containers. It handles a wide range of wastewater types and flows, requires no pretreatment, and is therefore highly robust. The system is easy to operate and can be fully controlled remotely.



Adsorption/Bio-oxidation system

## Main elements of our A-B system

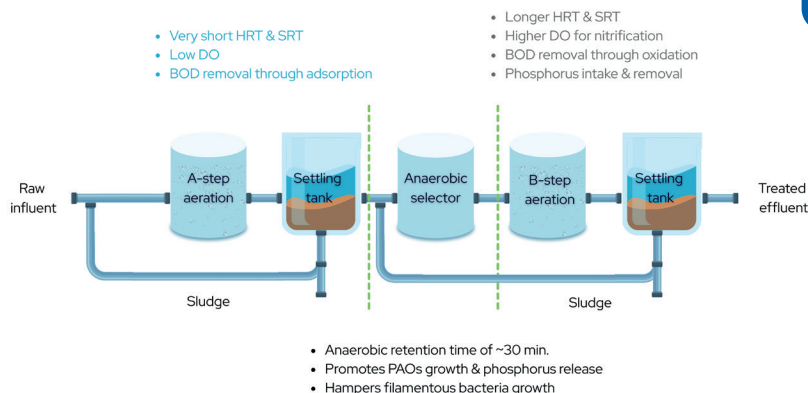
- **Two-Stage Treatment.** The high-rate A step removes easily biodegradable material and grease, reducing the load on the B step, which completes biological oxidation for high-quality effluent.
- **Anaerobic Selector.** Enables biological phosphorus removal and denitrification, suppresses filamentous bacteria, and promotes floc-formers without chemicals.
- **Venturi Aeration.** Energy-efficient aeration with excellent mixing, lowering operational costs.
- **Sensor-Driven Control.** Real-time oxygen and MLSS monitoring allows precise control of F/M ratio, sludge retention time, and energy use.
- **Automated Sludge Wasting.** Valves and optional sensors simplify sludge handling and reduce manual work.

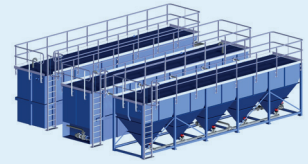
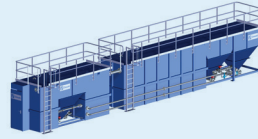
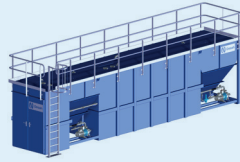
The A-B system treats the water in such a way it is possible to discharge the water or use it for irrigation. If necessary in regards to wastewater reuse ambitions it is also possible to add extra treatment steps in your treatment process so your water is of such a quality you can use it for water reuse applications.

### A-B performance

BOD	98%
COD	92%
Total phosphorus	85%
Total nitrogen	65-80%
Ammonia	98%
TSS	99%

Expected removal rates based on standard municipal wastewater. Removal rates depend on wastewater quality.





Type	AB50	AB100	AB250
Hydraulic capacity	25 - 85 m <sup>3</sup> /day	85 - 150 m <sup>3</sup> /day	150 - 350 m <sup>3</sup> /day
Dimensions (LxWxH)	11.3 x 2.1 x 2.6 (3.75) m	C1: 6.3 x 2.1 x 2.6 (3.75) m C2: 11.3 x 2.1 x 2.6 (3.75) m	C1: 10.8 x 2.1 x 2.6 (3.75) m C2: 11.3 x 2.1 x 2.6 (3.75) m C3: 11.3 x 2.1 x 2.6 (3.75) m
Footprint (LxW)	13 x 4 m	21 x 4 m	13 x 11 m
Weight (dry)	7500 kg	C1: 5250 kg C2: 7000 kg	C1: 8000 kg C2: 7000 kg C3: 6700 kg
Weight (with water)	46.2 tons	C1: 26.5 tons C2: 46.5 tons	C1: 47.7 tons C2: 55.6 tons C3: 31.7 tons
Sludge production	10 kg/d	20 kg/d	30 kg/d
Aeration tank sizes	A: 3.8 m <sup>3</sup> B: 22.8 m <sup>3</sup>	A: 6.9 B: 29.5	A: 13.3 B: 48.6
Protection class	IP54	IP54	IP54
Power supply	3 x 63A	3 x 63A	3 x 63A
Power consumption	20kW	25kW	30kW

## Applications

Desah's A-B package plants are developed for situations where you need to treat your water decentralised/locally because there is no connection possible with the sewer system (distance or capacity of WWTP), you would like to save costs on investing in extensive sewer systems or you have sustainability goals in the field of water reuse. Because of the modular design it is easy to scale up for treating higher volumes of water (up to thousands of cubic meters per day). Desah's package plants are suitable for:

- (New) neighbourhoods
- Office buildings and schools
- Holiday parks, resorts and hotels
- Remote settlements and villages
- Additional capacity WWTP
- Temporary situations like refugee camps, etc.

## Advantages

- Excellent, chemical free, efficient treatment.
- Compact footprint.
- Simple, stable process which is easy to operate and can handle shock loads.
- Modular design for easy upscaling and adding additional treatment steps.
- Plug & play system with minimum civil work.
- Fully automated system including online remote monitoring system.
- Low Total Cost of Ownership (TCO)

### Desah is part of Noardling