



Description:

ClearFox WWT modules are fully equipped biological treatment plants. Preatreatment such as settling tank, storage tank and buffer are not scope of delivery. They can be ordered optionally. All compounds are preinstalled in a 20ft high-cube container as fixed bed biological treatment section and lamella separator. The system runs fully automatically operated by a control unit.

The waste water inflow needs to be pretreated and equalised to Q20. The pretreated wastewater is pumped into the fixed bed reactor. It is equipped with aeration membranes, distributor system, blank holders and all support for positioning grid tube blocks in order to get a high performance bioreactor for waste water treatment. Included in the scope is a blower and airsplitters (pro rata). In order to reduce TSS a clarifying unit is connected after the modules. Secondary sludge from the clarifier is pumped back to the client's sludge storage.

The typical application is reduce carbon and nitrogen concentration from domestically or municipally nature. The design is according to DWA guidelines, the cleaning efficiency is approved in field tests, made by external waste water institutes (notified bodies). Test reports and certificates for static, performance, origin, DWA guidelines are available on request. Additional pretreatment needs a volume of 10 m³ (settling) plus 5 m³ (sludge storage 30 d) plus buffer volume to reduce Q10 to Q20.

Technical Specifications:

| Module type | CF-C-50 |
|-----------------------------------|----------------------------|
| Flow rate | 50 m³/d |
| Flow rate Q10 | 5,00 m³/h |
| Flow rate Q20 into fixed bed tank | 2,50 m³/h |
| Load BOD ₅ | 20 kg/d |
| Load COD | 40 kg/d |
| Measures (l/w/h) in m | 6,1/2,5/2,8 |
| Machine house (l/w/h) in m | inside container |
| Weight (transport/operation) | 7,0/23,0 to |
| Power connected | 1,75 kW |
| Power consumption | 28 kW/d (1,75 kW x 16 h/d) |
| Buffer | not included |
| Sludge storage | not included |

Application:

All kinds of domestic and municipal waste water. Influent: domestic/municipal wastewater. It also can applied to industrial purposes. In that case the design has to be individually adjusted.

Cleaning Performance:

The waste water is purified according to German standards for waste water treatment. The German waste water management regulation sets limits (up to BOD load of 60 kg/d) for

COD 90 mg/l

BOD₅ 20 mg/l

Nitrification depending on load

Options:

There are several options applicable. Please have a look at the appropriate data sheets.

Pretreatment: settling tank, sludge storage and buffer tank.

UV treatment => [DO_DB_20181204_UV_treatment.pdf](#)

Chloride dosing => [DO_DB_20181204_Chlorine Dosing Unit.pdf](#)

See also data sheets:

[DO_DB_20181204_CF-FBR inlet module+container.pdf](#)

[DO_DB_20181204_CF-lamella-AP-tank.pdf](#)

on website.

Clients' Service:

According to our checklist after ordering.

Before delivery:

- Prepare a concrete foundation for positioning the container (stripes or similar; drawings available from PPU)

After positioning:

- Read owner's manual
- Connect inlet/outlet pipe
- Connect power supply
- Fill with water
- Start up by push the button on controller

Benefits for Clearfox® Container compact modules:

- fast startup, cost saving in installation, small footprint
- modular system, adaptable at every application
- high performance with high quality, Made in Germany
- flexible against underload and overload
- industrial as well as municipal wastewater
- stable and very robust process technology