



ORKA SSB[®]

Fully biological sewage treatment plants
for domestical & industrial wastewater

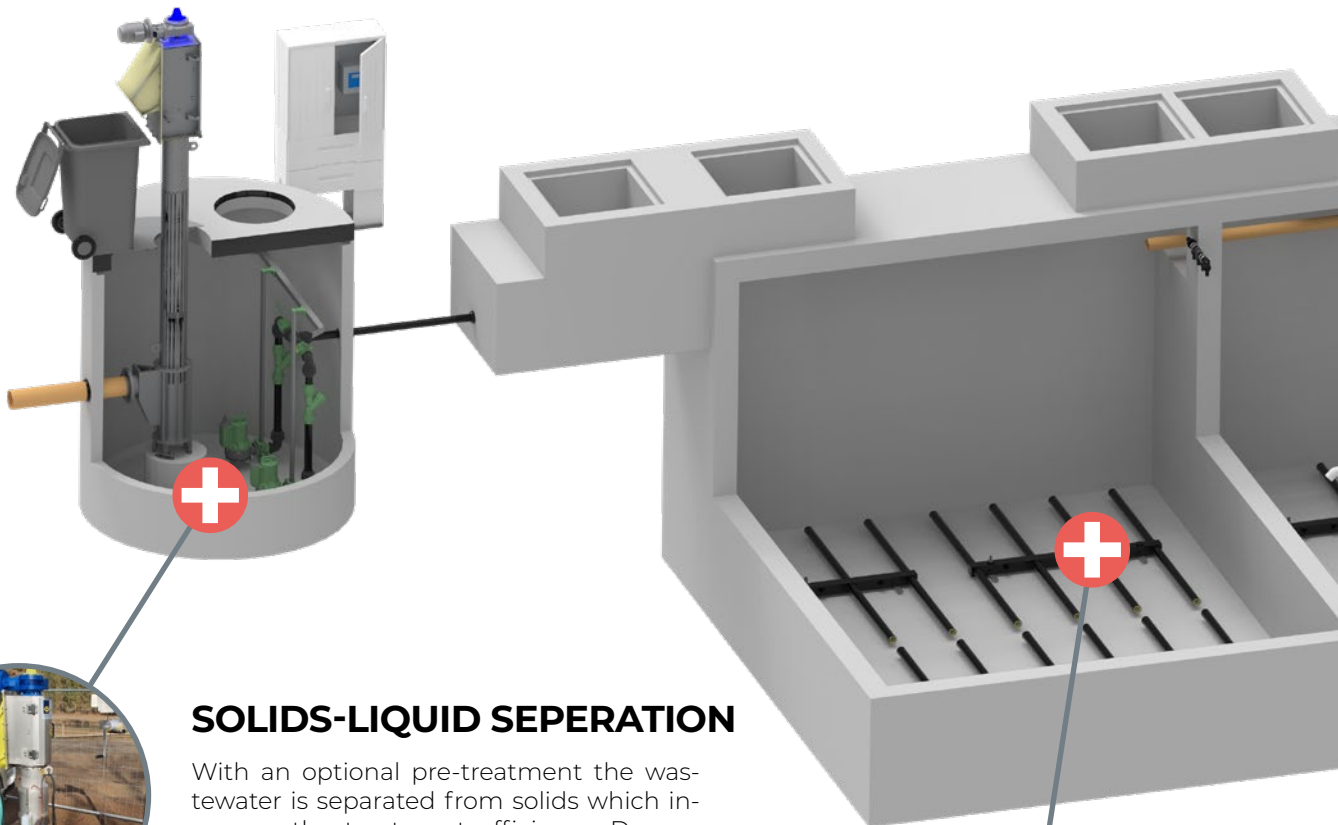


ORKA

Sustainable solutions for large wastewater quantities

A sustainable solution requires a consistent analysis of needs, competent planning and reliable technology. Regardless of whether it is a new construction or the upgrading of an existing wastewater treatment plant. Our goal is to deliver the reliable wastewater treatment plant

as a cost-effective and coherent concept with all our "know how" for your requirements. The selection and use of high-quality components play just as important a role in the success of our ORKA solutions as the simple installation of the components on site.



SOLIDS-LIQUID SEPERATION

With an optional pre-treatment the wastewater is separated from solids which increases the treatment efficiency. Depending on the local conditions, this stage can be combined with a lifting station.

AIR DIFFUSER UNIT

Oxygen is supplied by side channel blowers and highly efficient membrane diffusers. Depending on plant design several diffuser types and shapes can be used.





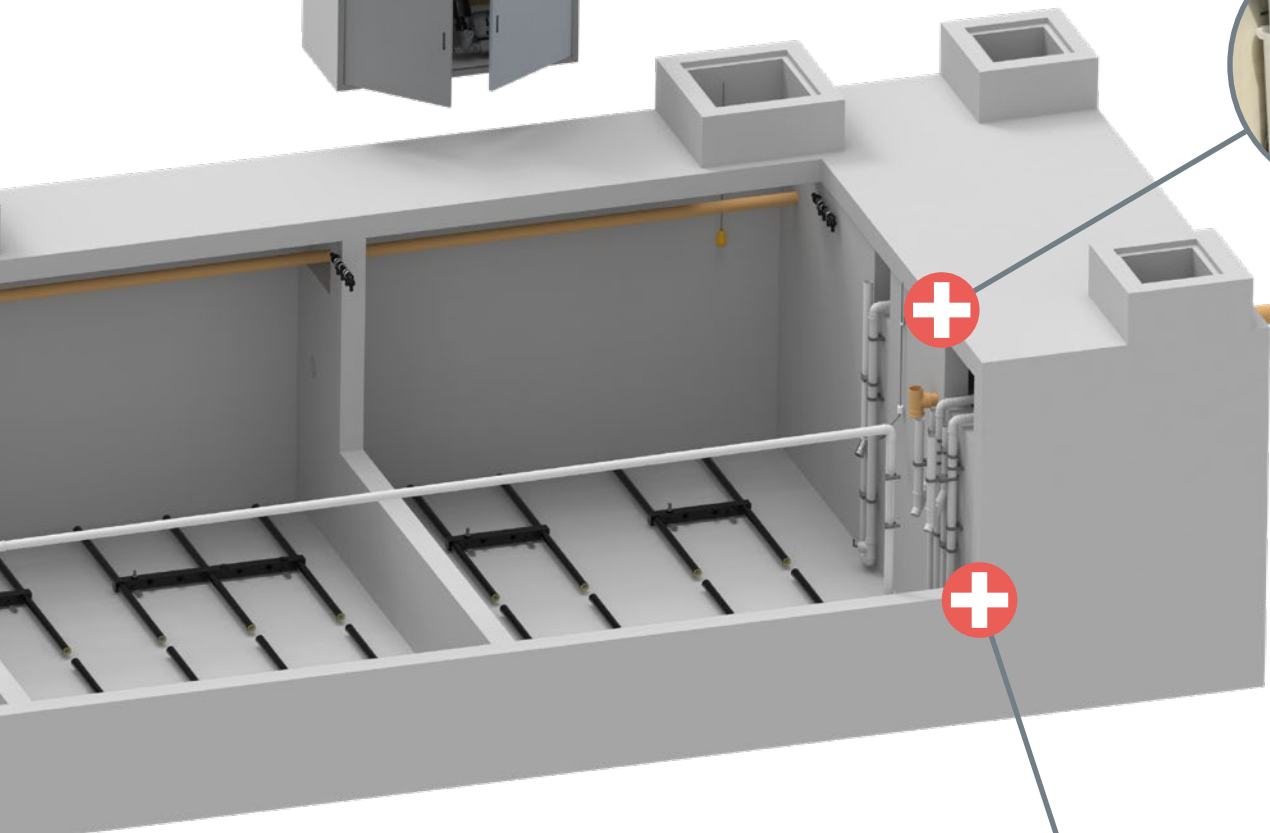
CONTROL STATION

For each plant design individual engine sets are chosen and completed with our intuitional to handle control units.



ADDITIONAL TREATMENT STAGE

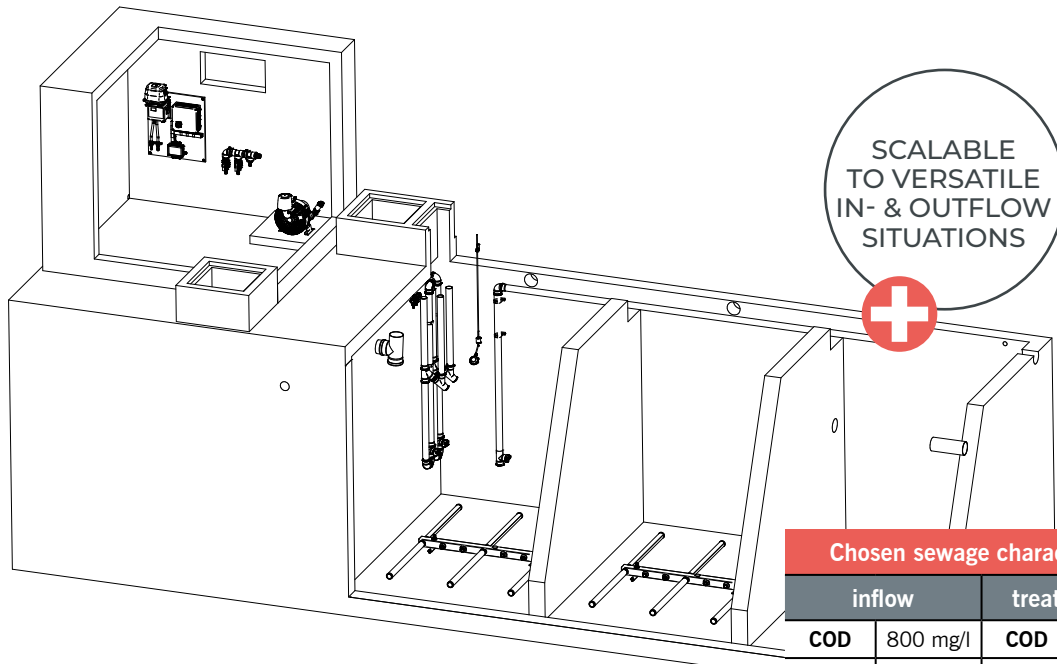
A further effluent treatment can be realized with several dosing and disinfection modules.



LIFTING UNIT

Low-maintenance air-lift systems in combination with diaphragm compressors take care of a reliable and cost-efficient water lifting within our plants. Alternatively, submersible pumps can also be used.





AQUATO® ORKA-S SSB®
20 m³/d

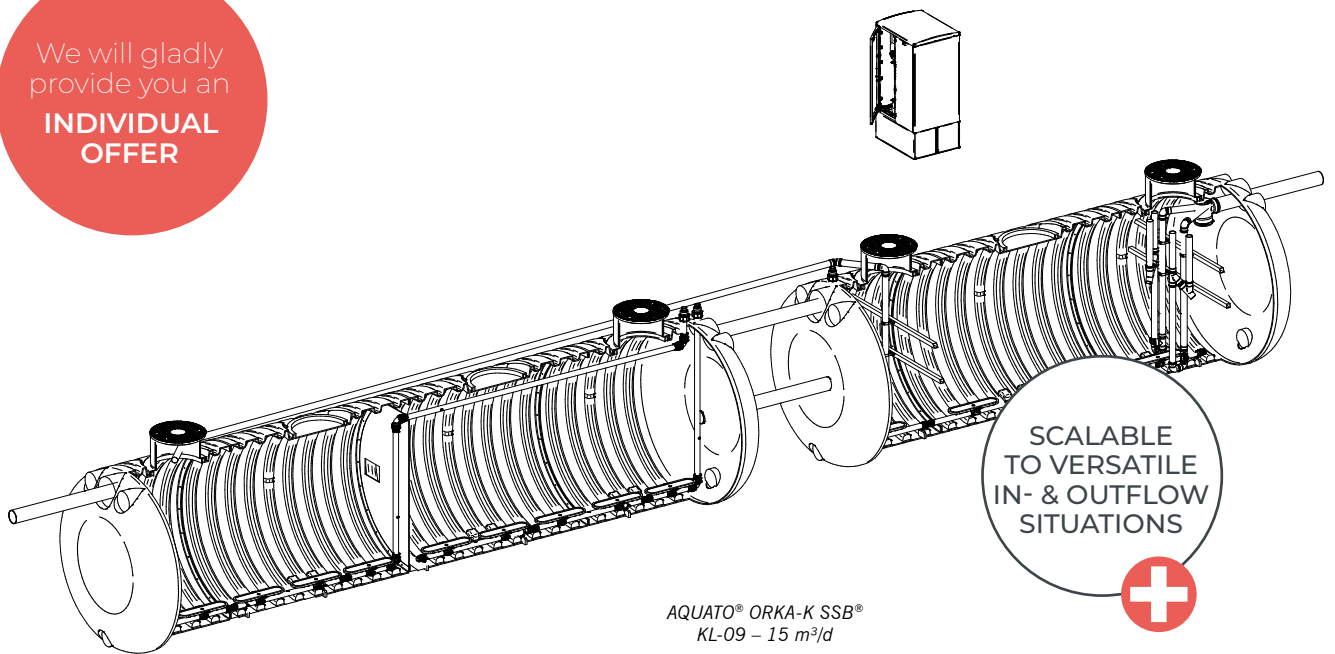
| Chosen sewage characteristics: | | | |
|--------------------------------|----------|--------------------------------|-----------------|
| | inflow | | treated outflow |
| COD | 800 mg/l | COD | < 120 mg/l |
| BOD₅ | 400 mg/l | BOD₅ | < 40 mg/l |
| TSS | 465 mg/l | NH₄-N | < 10 mg/l |
| TKN | 73 mg/l | N_{total,anorg} | < 25 mg/l |

| article description | daily inflow | possible tank geometry – rectangle* | | | |
|-------------------------------|--------------|-------------------------------------|-----------------|-------------|-----------|
| | | chambers | L x W (inner) | water depth | volume |
| AQUATO® ORKA-S SSB® | 15,0 m³/d | 3 | 3,00 m x 1,95 m | 2,50 m | 43,9 m³ |
| AQUATO® ORKA-S SSB® | 17,5 m³/d | 3 | 3,00 m x 2,30 m | 2,50 m | 51,8 m³ |
| AQUATO® ORKA-S SSB® | 20,0 m³/d | 3 | 3,00 m x 2,60 m | 2,50 m | 58,5 m³ |
| AQUATO® ORKA-S SSB® | 25,0 m³/d | 3 | 3,00 m x 3,25 m | 2,50 m | 73,1 m³ |
| AQUATO® ORKA-S SSB® | 30,0 m³/d | 3 | 3,00 m x 3,90 m | 2,50 m | 87,8 m³ |
| AQUATO® ORKA-K SSB® | 40,0 m³/d | 3 | 3,20 m x 4,05 m | 3,00 m | 116,6 m³ |
| AQUATO® ORKA-K SSB® | 50,0 m³/d | 3 | 3,20 m x 5,05 m | 3,00 m | 145,4 m³ |
| AQUATO® ORKA-K SSB® | 60,0 m³/d | 3 | 3,20 m x 6,10 m | 3,00 m | 175,7 m³ |
| AQUATO® ORKA-K SSB® - 2 lines | 70,0 m³/d | 2 x 3 | 3,20 m x 3,55 m | 3,00 m | 204,5 m³ |
| AQUATO® ORKA-K SSB® - 2 lines | 80,0 m³/d | 2 x 3 | 3,20 m x 4,05 m | 3,00 m | 233,3 m³ |
| AQUATO® ORKA-K SSB® - 2 lines | 90,0 m³/d | 2 x 3 | 3,20 m x 4,55 m | 3,00 m | 262,1 m³ |
| AQUATO® ORKA-K SSB® - 2 lines | 100,0 m³/d | 2 x 3 | 3,20 m x 5,05 m | 3,00 m | 290,9 m³ |
| AQUATO® ORKA-K SSB® - 3 lines | 200,0 m³/d | 3 x 3 | 3,20 m x 4,85 m | 3,50 m | 488,9 m³ |
| AQUATO® ORKA-K SSB® - 3 lines | 300,0 m³/d | 3 x 3 | 3,20 m x 7,30 m | 3,50 m | 735,8 m³ |
| AQUATO® ORKA-K SSB® - 4 lines | 400,0 m³/d | 4 x 3 | 3,20 m x 6,90 m | 3,50 m | 927,4 m³ |
| AQUATO® ORKA-K SSB® - 4 lines | 500,0 m³/d | 4 x 3 | 3,20 m x 8,65 m | 3,50 m | 1162,6 m³ |

* Different dimensions possible, even lower or deeper water depths realisable. For a design, please contact us!

With an inflow of ≥ 40,0 m³/d we recommend the usage of an additional sludge storage (with V = app. 10,0 - 20,0 m³) and an upstream screen. Suitable units are available on request.

We will gladly provide you an **INDIVIDUAL OFFER**



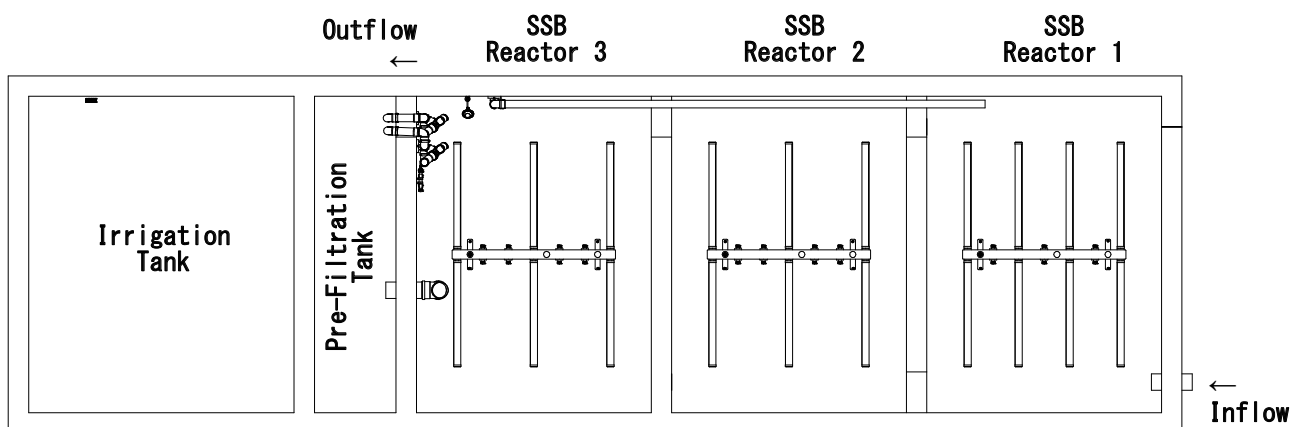
| article description | daily inflow | possible tank geometry – PE tank * | | | |
|--------------------------------------|--------------|---|--|-------------|----------|
| | | L x D (outer) | tank weight | water depth | volume |
| AQUATO® ORKA-K SSB® KL-09 | 11,3 m³/d | 1 pc 11,00 m x 2,20 m | 1 pc each 1.390 kg | 1,90 m | 36,0 m³ |
| AQUATO® ORKA-K SSB® KL-09 | 15,0 m³/d | 1 pc 6,00 m x 2,20 m 1 pc 8,50 m x 2,20 m | 1 pc each 830 kg 1 pc each 1.100 kg | 1,90 m | 47,3 m³ |
| AQUATO® ORKA-K SSB® KL-09 | 22,5 m³/d | 1 pc 3,50 m x 2,20 m 2 pcs 8,50 m x 2,20 m | 1 pc each 550 kg 2 pcs each 1.100 kg | 1,90 m | 66,9 m³ |
| AQUATO® ORKA-K SSB® KL-09 | 30,0 m³/d | 2 pcs 13,50 m x 2,20 m | 2 pcs each 1.670 kg | 1,90 m | 88,5 m³ |
| AQUATO® ORKA-K SSB® KL-09 | 45,0 m³/d | 3 pcs 13,50 m x 2,20 m | 3 pcs each 1.670 kg | 1,90 m | 132,8 m³ |
| AQUATO® ORKA-K SSB® 2 lines KL-09 | 60,0 m³/d | 4 pcs 13,50 m x 2,20 m | 4 pcs each 1.670 kg | 1,90 m | 177,0 m³ |
| AQUATO® ORKA-K SSB® 2 lines KL-09 | 75,0 m³/d | 2 pcs 6,00 m x 2,20 m 4 pcs 13,50 m x 2,20 m | 2 pcs each 830 kg 4 pcs each 1.670 kg | 1,90 m | 216,1 m³ |

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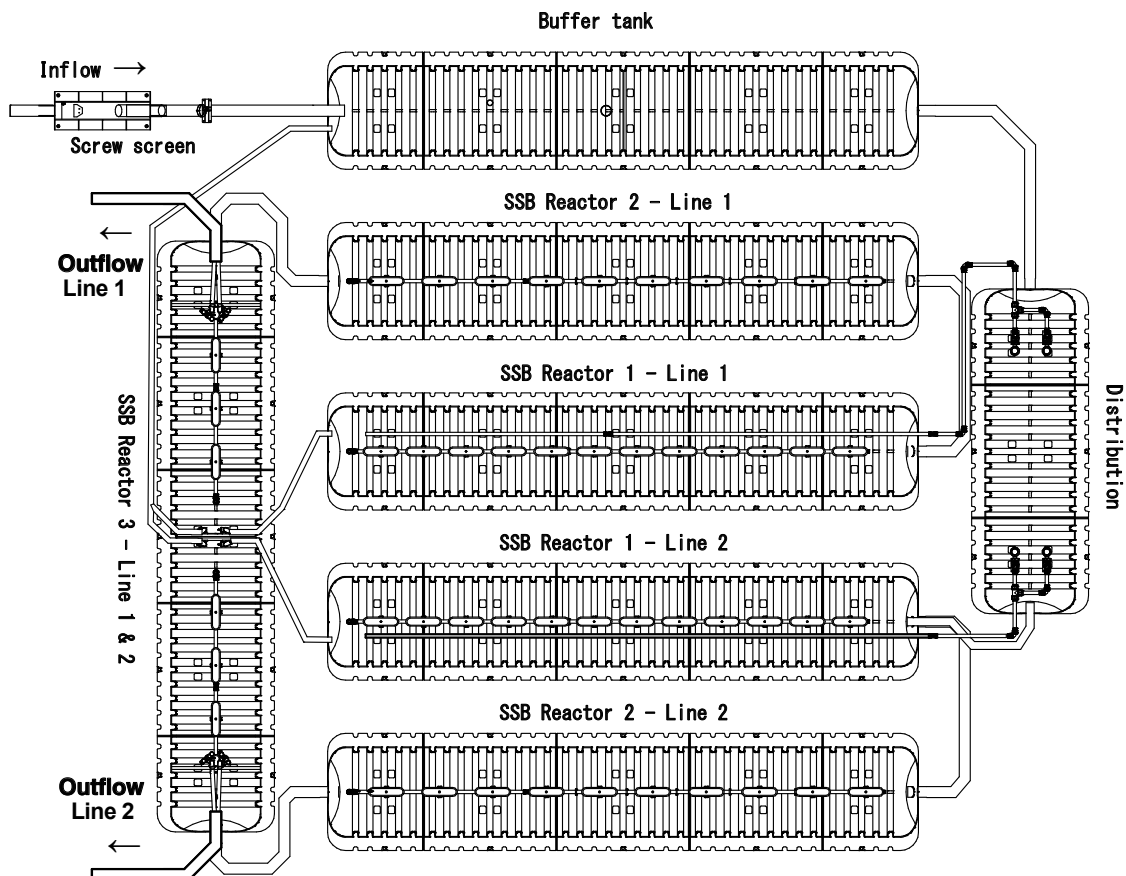
ORKA-S SSB® 20 m³/d - 120 PE

- New construction of a sewage treatment plant for an office block building
- Biological treatment according to the SSB® principle with fully plant aeration
- Further effluent treatment with chlorination, filtration and storage for irrigation purposes



System solution ORKA-K SSB® 75m³/d - 500 PE

- New construction of a STP in large-volume PE tanks for the wastewater treatment of a small housing estate
- Complete pre-assembly of the treatment technology in the tanks by AQUATO®
- Fail-safe plant design through operation in two autarkic lines
- Use of an upstream screening screw for solids-fluid separation and protection of the downstream engines



Presented by:



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