

## Checklist

### Aeration

#### Design criteria

#### Installation

#### Plant size

Project name: \_\_\_\_\_

Project country: \_\_\_\_\_

Energy optimised  Invest optimised

New plant  Rehabilitation

PE \_\_\_\_\_ or inflow \_\_\_\_\_ m<sup>3</sup>/day

Plant elevation \_\_\_\_\_ m above sea level (NN)

#### Diffuser type

9" disc diffuser  12" disc diffuser  tube diffuser  panel diffuser

#### Basin data (please enclose a drawing)

Round tank



Annular tank



Rectangular tank



No. of tanks: \_\_\_\_\_ pcs

Diameter: \_\_\_\_\_ m

Depth: \_\_\_\_\_ m

Volume: \_\_\_\_\_ m<sup>3</sup>

No. of tanks: \_\_\_\_\_ pcs

outer ø: \_\_\_\_\_ m

inner ø: \_\_\_\_\_ m

Depth: \_\_\_\_\_ m

Volume: \_\_\_\_\_ m<sup>3</sup>

No. of tanks: \_\_\_\_\_ pcs

Length: \_\_\_\_\_ m

Width: \_\_\_\_\_ m

Depth: \_\_\_\_\_ m

Volume: \_\_\_\_\_ m<sup>3</sup>

Circulation channel



No. of tanks: \_\_\_\_\_ pcs

No. of channels: \_\_\_\_\_ pcs

Straight Length: \_\_\_\_\_ m

Channel width: \_\_\_\_\_ m

Depth: \_\_\_\_\_ m

Volume: \_\_\_\_\_ m<sup>3</sup>

Constant water level?

Yes

No

Min. water depth: \_\_\_\_\_ m

Max. water depth: \_\_\_\_\_ m

**Process data**

- preliminary denitrification       intermittent aeration  
 SBR-process       \_\_\_\_\_

**Submersible mixers:**

If yes:

- yes       no  
 simultaneous operation (mixers + aeration)

**Minimum requirements per tank**

SOTR min.: \_\_\_\_\_ kgO<sub>2</sub>/h

SOTR average: \_\_\_\_\_ kgO<sub>2</sub>/h

SOTR max.: \_\_\_\_\_ kgO<sub>2</sub>/h

**If SOTR not given**

alpha-value required: \_\_\_\_\_

(value between 0,5 – 0,8)

AOR min.: \_\_\_\_\_ kgO<sub>2</sub>/h

AOR average: \_\_\_\_\_ kgO<sub>2</sub>/h

AOR max.: \_\_\_\_\_ kgO<sub>2</sub>/h

**Please fill in if AOR or SOTR are not available:**

BOD<sub>in</sub>: \_\_\_\_\_ mg/l

COD<sub>in</sub>: \_\_\_\_\_ mg/l

MLSS: \_\_\_\_\_ kg/m<sup>3</sup>

NH<sub>4,in</sub>: \_\_\_\_\_ mg/l

NO<sub>3,out</sub>: \_\_\_\_\_ mg/l

BOD<sub>out</sub>: \_\_\_\_\_ mg/l

CSB<sub>out</sub>: \_\_\_\_\_ mg/l

NH<sub>4,out</sub>: \_\_\_\_\_ mg/l

TKN<sub>out</sub>: \_\_\_\_\_ mg/l

**Process definition**

Based on which value should the selection be done

- SOTR     airflow     given Number of diffusers     other

**Additional comments**

**Please send the completely filled checklist to:**

WILO SE, Werk Hof

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