

14/11/2023

Declaration of Total Nitrogen performance from trichel Novo Submerged Aeration bed system. Results are from Platform test as carried out by PIA GMBH, Aachen in Germany as part of the system EN12566-3 testing protocol.

System achieved a % reduction of 47.5% as per table taken from test report below:

The EN 12566 Part 3 requires the evaluation of the nominal loading sequences, i.e. 20 samples taken in the sequences 1, 3, 5, 7 and 9.

Means, minima and maxima as well as the standard deviations are shown hereunder in Table 9 and Table 10.

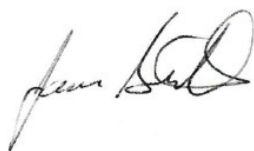
Table 9: Treatment efficiencies under nominal loading conditions (100 %)

Efficiency [%]	Mean*	Minimum	Maximum	Standard deviation
COD	91.6	84.8	94.9	2.9
BOD ₅	95.9	91.0	98.9	2.2
N _{tot}	47.5	18.6	67.1	12.6
NH ₄ -N	56.7	0.0	91.7	31.4
P _{tot}	43.8	24.6	64.3	9.4
SS	95.3	88.4	98.7	3.1

Table 10: Treated effluents characteristics under nominal loading conditions (100 %)

Effluent	Mean	Minimum	Maximum	Standard deviation
COD [mg/l]	52	35	72	10.5
BOD ₅ [mg/l]	11	3	19	4.6
TOC [mg/l]	28	20	36	4.8
N _{tot} [mg/l]	15.2	2.7	32.1	10.2
NH ₄ -N [mg/l]	9.4	0.5	20.7	7.6
NO ₃ -N [mg/l]	25.1	19.4	33	4.1
N _{inorg} [mg/l]	4.3	3.0	6.1	0.7
P _{tot} [mg/l]	16	6	42	10.3
SS [mg/l]	0.1	0.1	1.0	0.2
Settleable solids [ml/l]	52	35	72	10.5

* Efficiency ratio for the treatment efficiency declaration according to EN 12566-3 chapter 6.3



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