

Removal of micropollutants in the Emmingen-Liptingen wastewater treatment plant

Specification of the plant:

Treatment capacity	[PE]	7,500
Load	[PE]	6,500
Inflow volumes:		
▪ Dry weather flow	[l/s]	51.4
▪ Max. wet weather flow	[l/s]	84
▪ Annual wastewater volume	[m³/a]	930,000



Process technology:

Mechanical treatment	Debris trap, screen, sand and grease trap
Biological treatment	Single stage activated sludge process with aerobic sludge stabilization
Chemical treatment	Phosphate precipitation: simultaneous and post
Elimination of micropollutants	Granular activated carbon filter
Filter	Continuous GAC -filter

Gemeinde
Emmingen-Liptingen



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Emmingen-Liptingen
Liptinger Str. 100
78576 Emmingen-Liptingen

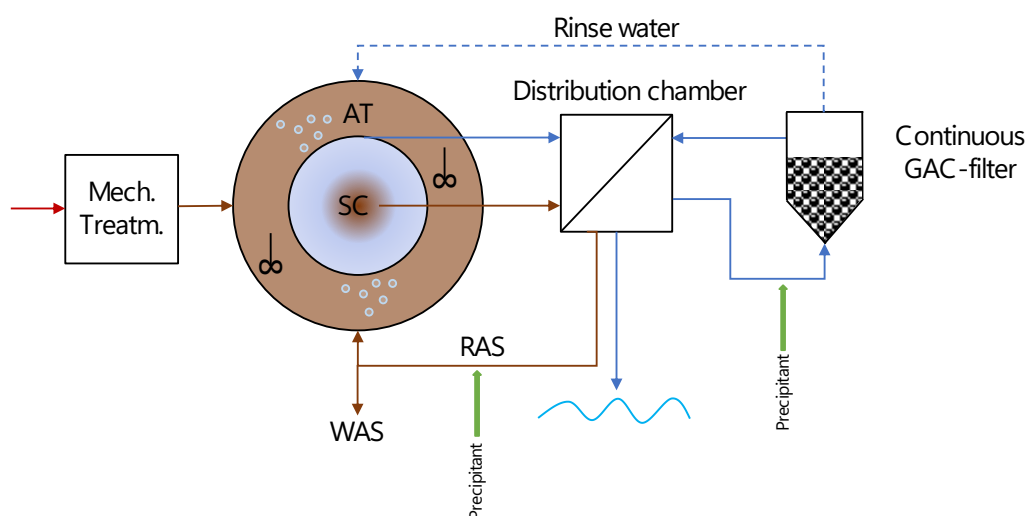


Fig 1: Process diagram of the Emmingen-Liptingen wastewater treatment plant

Design of micropollutant removal:

Year of commissioning of the advanced treatment stage	2018
Activated carbon filter	
▪ Max. treatable volume flow	[l/s] 30
▪ Number of filter cells	3
▪ Surface area of filter cells	[m²] 15
▪ Volume of the filter cells	[m³] 31.5
▪ Volume of the activated carbon bed per cell	[m³] 10.5
▪ Surface area of the activated carbon bed per cell	[m²] 5
▪ Max. filter velocity	[m/h] 7.2
▪ Min. empty bed contact time (EBCT)	[min] 10