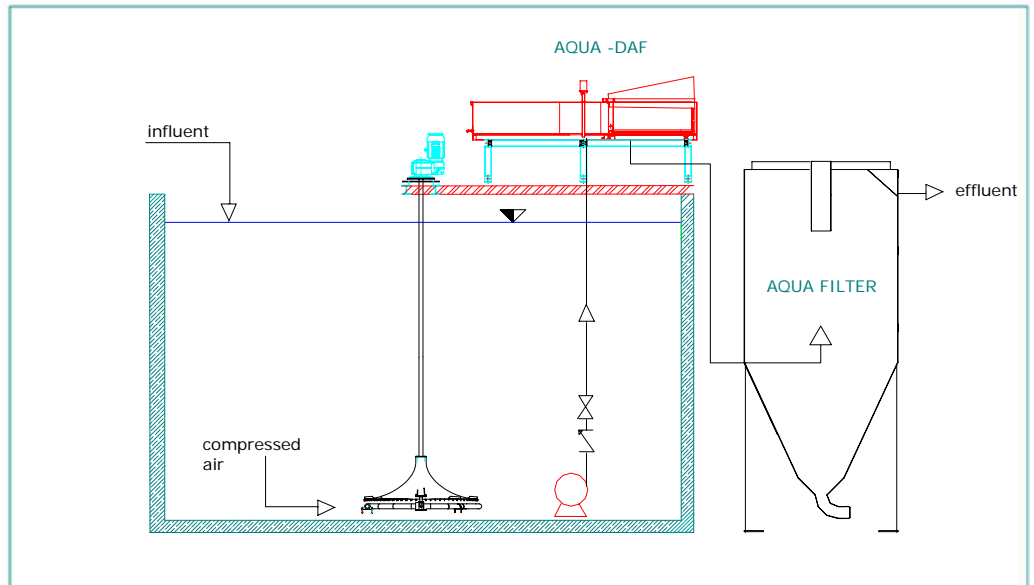




Tecnology

DOUBLE TREAT®

Austep has a wide and exclusive know how in the Double Treat® technology application, integrated with special mixing and aeration systems in the biological oxidation basins.



PROCESS DESCRIPTION

In the Double Treat® process the secondary sedimentation is replaced by Dissolved Air Flotation (DAF) for a more efficient and reliable separation of the treated effluent from the biological sludge. The clarified effluent passes through a continuous self-cleaning sandfilter that provides the final polishing step for the suspended solids removal, in order to guarantee a constant high quality effluent. Double Treat plants can operate at high biomass concentration, therefore they are very compact. Sludge thickening is obtained during clarification without further equipment and costs. Due to the robust aeration and sludge clarification system, Double Treat® plants are reliable and long-lasting without maintenance.



Applications

- Heavy loaded wastewater treatment plants, with high mixed liquor suspended solids concentration.
- Plants with bulking and foam problems, with difficulties in sludge settling.
- Compact plants, where sedimentation it is not possible due to the high space demand.
- Revamping of existing plants.



Advantages

- Compact plants for high waterflow
- Compact plants for high COD loads
- Easy revamping and retrofitting of existing plants.
- No extra space demand for clarification.
- Simplified sludge line because of thickened sludge production
- More reliable and controlled operating of the plant.



Comparison to other clarification system:

In comparison to activated sludge plants:

Lower volume and surface (1/2–1/3 of common values)
No problem in case of bulking
No need of a thickening step, no odour problems.

In comparison to membrane filtration:

Lower energetic consumption
Reduced maintenance costs
Lower investment and running costs

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