



ucd[®] puls

drinking water

pulsed sludge blanket clarification

- Pulsatube[®] & Pulsazur[®] technologies
- surface water



operating principle

coagulation

Addition of a coagulant in order to increase the size and cohesion of the floc.

sludge blanket

Formation of a pulsed sludge blanket through a vacuum chamber equipped with a vacuum pump and an automatic system for pressure regulation.

- Entry of coagulated water into the contact chamber upstream of the vacuum chamber.
- Injection of the flocculation agent (polymer) during transfer to the vacuum chamber. The flocculation process ensures the formation of a floc of a homogeneous size.
- Formation of the sludge blanket in the clarifier between the distribution pipes and the lamellar modules. The decanted water flows out by rising through the blanket. The excess sludge is recovered by overflow in an internal concentrator and is periodically discharged by opening a gravity purge valve.
- Accelerated separation of the water and flocs by passing them through lamellar modules.
- Recovery of the clarified water by perforated submerged collectors.

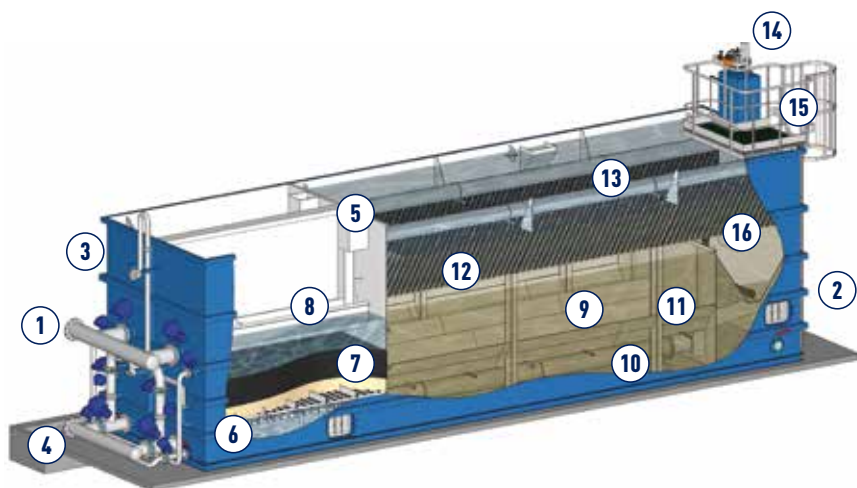
applications

- High turbidity (up to 1,000 NTU)
- Water with a high content of organic matter or pesticides

functions

- Turbidity of clarified water around 1 - 3 NTU
- Up to 60% TOC abatement in the Pulsatube[®] version, up to 80% in the Pulsazur[®] version (PAC injection)
- Low energy consumption (0.5 kW for the largest model)
- Possibility of adding bilayer gravity filters
- Turbidity of filtered water in accordance with current drinking water standards

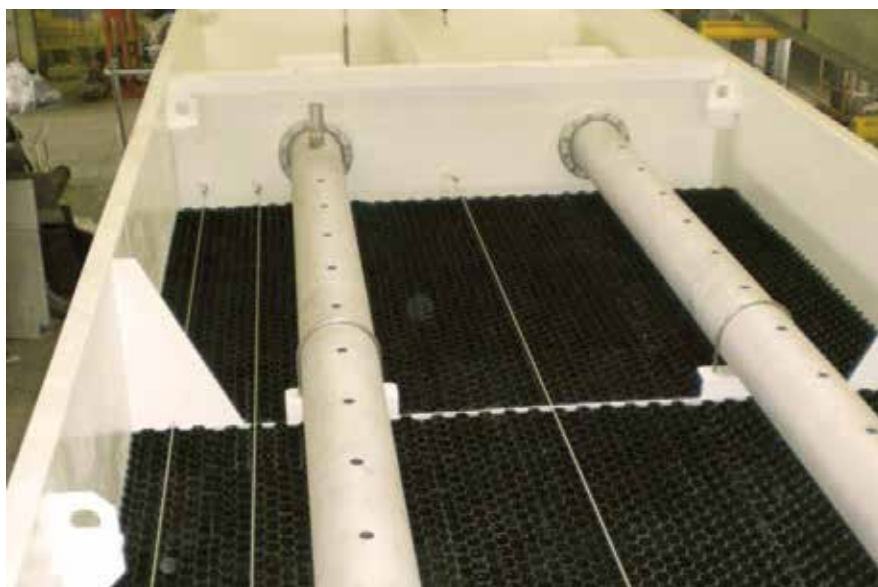
operating diagram



- 1 drinking water
- 2 raw water
- 3 backwashing air input
- 4 backwashing water input
- 5 transfer of clarified water to filters
- 6 nozzle plate
- 7 gravity bilayer filtration
- 8 treated water collection channel
- 9 flow straighteners
- 10 piping and distribution of flocculated water
- 11 sludge blanket
- 12 lamellar modules
- 13 clarified water collector
- 14 vacuum pump
- 15 vacuum chamber
- 16 sludge concentrator and drain manifold

technical characteristics

UCD® PULS model	unit	P-09	P-12	P-15	P-18	P-24	P-30
Production/day	m ³ /d	820	1060	1410	1650	2120	2700
Instant flow rate	m ³ /h	35	45	60	70	90	115
Power consumption	kW	0,35	0,35	0,35	0,50	0,50	0,50
Total tank length	m	3,7	4	4,4	5,6	7,6	11,4
Total tank width	m	3,3	3,3	3,3	3,3	3,3	3,3
Total tank height	m	3,7	3,7	3,7	3,7	3,7	3,7
Overall height	m	5,4	5,4	5,4	5,4	5,4	5,4



contacts

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services and after-sales

A team is available to you for the pilot study, installation, commissioning and maintenance of the plant.