



Pulsator

sludge blanket clarifier

○ drinking water / urban wastewater



safeguard the quality of your clarified water

○ **savings**

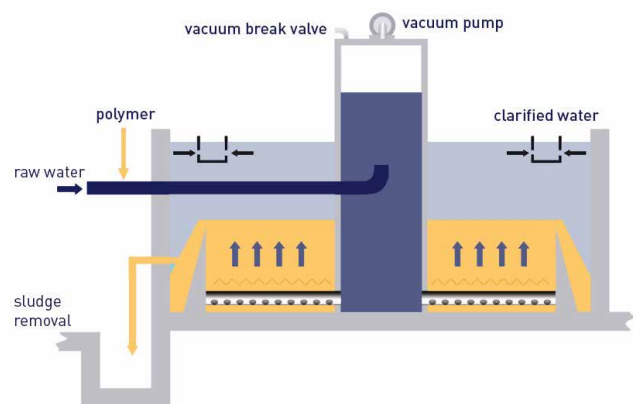
reduced energy-consumption and reagent use

○ **flexibility and performance**

able to adapt to variations in raw water quality and flow, safe settling rate

Pulsator is a pulsed sludge blanket clarifier, which simultaneously carries out coagulation and flocculation. Extremely efficient, whatever be the source or temperature of water, Pulsator equips most of the world's capitals – the first patent having been registered in 1954.

Optimised with laminar modules on the upper part and / or plates in the sludge bed in the Pulsatube™ and Ultrapulsator versions, the clarifier can double its operating speeds and adapt itself to water at extremely cold temperatures. Thanks to its sludge bed, it optimises the contact of powdered activated carbon to eliminate pesticides and organic matter more effectively.



Pulsator technology . . .

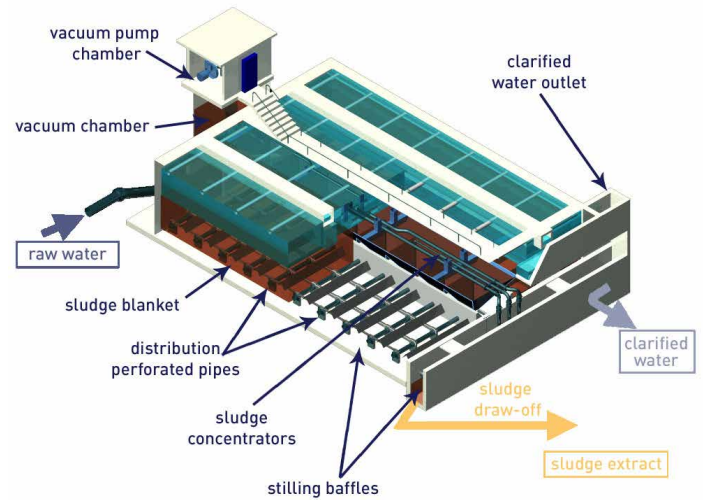
The sludge formed during flocculation is made up of an expansion mass called "sludge bed". Water, that has coagulated beforehand, arrives from the bottom of the device and flows through this sludge bed to emerge clarified at the top of the settling tank. The sludge bed is kept in expansion with the help of a pulsating operation.

vacuumizing

The air chamber is depressurised by pumping out the air that it contains resulting in a gradual rise in level until a height of 0.6 to 1 m above the water level is reached. During this phase, the sludge bed settles down with the effect of gravity.

flushing – decompression

When the high level is reached in the air chamber, the vacuum-breaking valve opens; water then flows at great speed through the manifolds creating a flushing effect. The sludge bed is decompressed. The excess sludge (water impurities and reagents) flows into the concentrators where it is extracted at regular intervals.



. . . what it can do for you



controlled hydraulics

flexible operation



reduced operating costs

easy operation



range / performance

	settling velocity (with respect to the sludge bed)	maximum inlet turbidity	maximum concentration of algae at the inlet
Pulsator	2-3 m/h 3-4.5 m/h	1,000 NTU	100,000 u/ml
Each range is made up of 28 elements with sludge bed surfaces varying from 50 m ² to 1,193 m ²			
Pulsator T (Pulsatube™)	4-6 m/h 6-9 m/h	1,000 NTU	100,000 u/ml
A range consists of: 25 elements (for speeds of 4 to 6 m/h), 19 elements (for speeds of 6 to 9 m/h)			
Pulsator U (Ultrapulsator)	9 m/h	1,000 NTU	100,000 u/ml