



PAQUES



## BIOPAQ<sup>®</sup>ICX

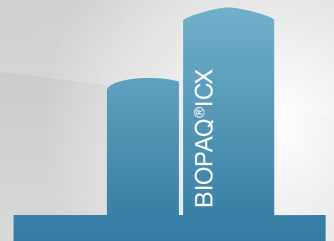
### Advanced anaerobic industrial effluent treatment

Flexible anaerobic effluent treatment based on BIOPAQ<sup>®</sup>IC technology and implementable in existing assets.

revitalizing resources

# Flexible anaerobic solutions

BIOPAQ®ICX combines the excellent properties of the BIOPAQ®IC reactor with a high flexibility with regard to tank design. The compact system is even implementable in existing tanks. Due to high overall biomass levels and concentration, the system can deal with high volumetric loading rates. The 2-stage biomass retention prevents wash-out of biomass and high liquid velocities while excellent mixing properties enables handling a wide range of industrial wastewater.



The BIOPAQ®IC technology is proven technology which is worldwide recognised as the most efficient way to clean industrial wastewater and produce biogas at the same time. BIOPAQ®ICX, a new development in the BIOPAQ® product line, was designed by Paques in order to meet today's customer's requirements. Having over 30 years of experience, more than 1000 references in wastewater treatment plants and more than 180 references in biogas purification systems, Paques is able to provide every industry/municipality with a tailor made wastewater treatment system that meets the customer's requirements.

## About BIOPAQ®ICX

- Based on proven BIOPAQ® technology with >25 years operational experience
- Two years experience in full-size demo units in several industries.
- Available for lower as well as high volumetric loading rates
- Upgrade of existing systems in wastewater treatment plants
- An economical option in case of expansion or upgrading current system
- Small footprint, suitable for urban area
- Production of 'green' energy-rich biogas
- Modular system – tailor made solution
- Worldwide availability and services

# BIOPAQ®ICX

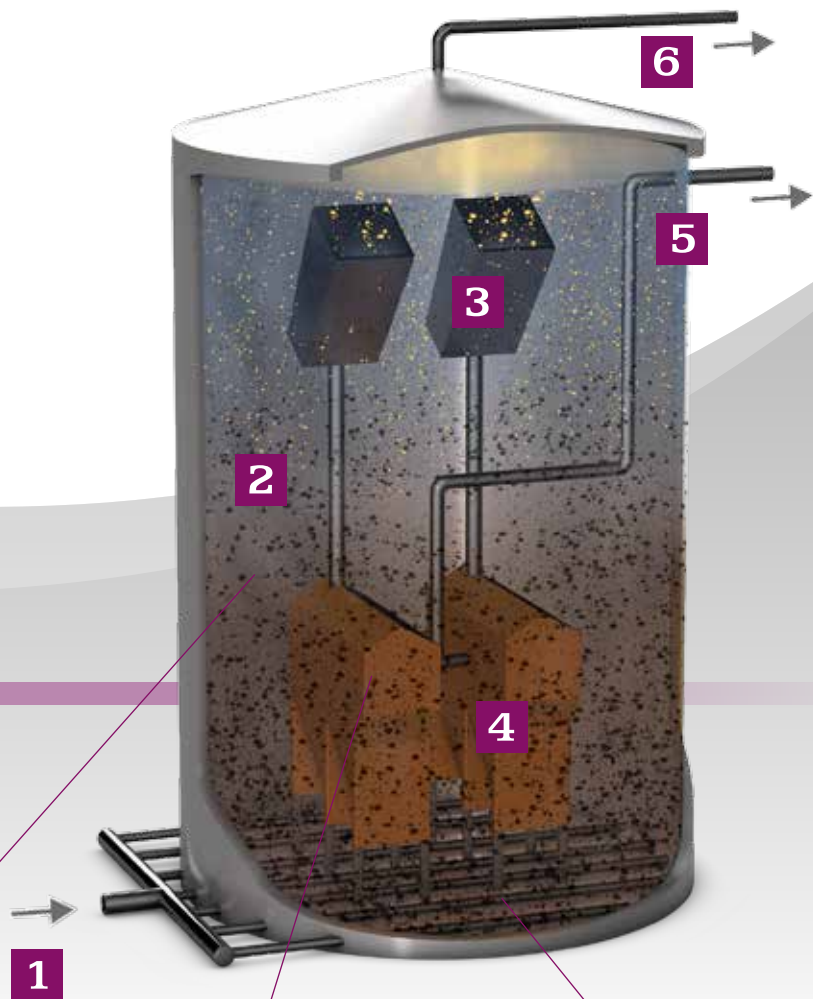
If your water treatment system no longer meets today's standards, BIOPAQ®ICX can either be applied in your current system, reusing existing assets like tanks and peripheral equipment by which investment costs are reduced, or extend or replace the current system.

## Characteristics of the BIOPAQ®ICX

- Modular design which fits in a wide range of tank sizes
- High volumetric loading rates are possible due to high overall biomass concentration and biomass level in the reactor
- Due to completely closed design no odour emissions: suitable for urban areas
- Excellent 2-stage biomass retention, so no wash-out of biomass
- Cleaning nozzles in the settling unit (CIP): low maintenance requirements and no clogging risk
- Capable of handling high calcium levels due to high liquid velocities in the reactor

### BIOPAQ®ICX, how it works

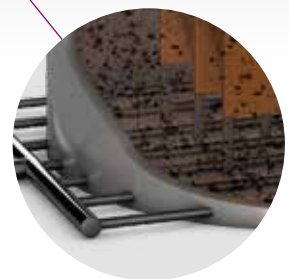
- 1** Wastewater enters the anaerobic digestion zone through the feeding/distribution system
- 2** Organic components are converted into methane (biogas), which leaves the reactor via the top of the reactor (6)
- 3** After the biological process is completed, the treated wastewater enters the degassing unit
- 4** In the lower unit the biomass is separated from the treated wastewater
- 5** Effluent leaves the reactor
- 6** Biogas leaves the reactor



- Superior biomass retention
- 2-stage separator design



- High quality reactor internals
- In-house manufacturing and quality control



- Proven design influent distribution system
- Ideal for mixing of the granular biomass bed and harvesting of the surplus biomass



## Paques: leading in biological wastewater and gas treatment

Paques has over 30 years experience in helping industries and municipalities to reduce their water and carbon footprints and reclaim valuable resources. The cost-effective effluent purification systems produce energy from wastewater, whilst purifying the water and facilitating water reuse. Since 1980, Paques realised more than 1800

references worldwide. Besides the headquarters in The Netherlands, Paques has subsidiaries and/or production locations in China, Brazil, United States of America, India and Malaysia. In many other countries, the company is represented by licensed partners. This ensures local presence and the best service for clients worldwide.

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