



PAQUES

BIOPAQ®UBOX

Anaerobic/aerobic sewage treatment

Combined anaerobic/aerobic sewage treatment
in a highly efficient system with low operational
costs and zero odour emission.

revitalizing resources

Modular design for sewage treatment in urban area

The BIOPAQ®UBOX combines biological sewage treatment and biogas purification in one reactor with high efficiency, low operational cost, small footprint and zero odour emission. The system provides a four step sewage treatment: anaerobic treatment, supplementary aerobic treatment, secondary clarification and biogas purification.



BIOPAQ®UBOX

BIOPAQ®UBOX was designed by Paques, the worldwide leader in anaerobic wastewater and biogas treatment. Having over 40 years of experience, more than 1.500 references in wastewater treatment plants and more than 290 references in biogas purification systems, Paques is able to provide every customer with a tailor made sewage treatment system that meets all their requirements.

About BIOPAQ®UBOX

- Proven technology, > 17 years operational experience
- BIOPAQ®UBOX references worldwide available
- Continuous innovation
- Available for all smaller and bigger sewage treatment plants
- Small footprint, also applicable in urban area
- Production of 'green' energy-rich biogas
- Modular system - tailor made solution
- Worldwide availability



BIOPAQ®UBOX, how it works

- 1** Sewage enters the feeding/distribution system, in which the sewage is uniformly distributed and stirred in the anaerobic digestion zone
- 2** Anaerobic modules; without energy consumption, organic components are converted into methane (biogas) in the anaerobic three phase separator
- 3** Biogas is separated and for further treatment, the treated sewage is brought into the aeration tank by an anti-return passage
- 4** Biogas is collected in the three phase separators and brought into the gas scrubber for desulphurization without the addition of chemicals
- 5** Leftover carbonaceous compounds, oxidizing ammonium and dissolved malodorous compounds from the previous anaerobic process are removed in the aerobic stage
- 6** The final treatment is carried out in the settler with a wide settling surface, in which the water is clarified and the biomass is retained
- 7** Effluent leaves the reactor
- 8** H₂S free biogas leaves the reactor

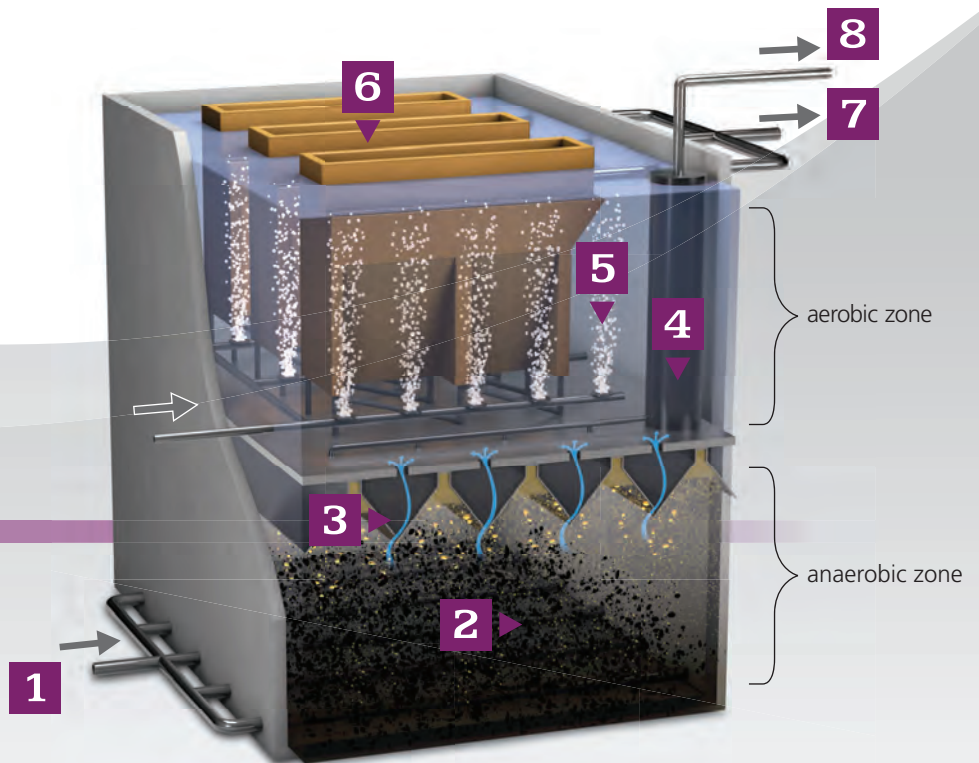
BIOPAQ®UBOX

Technical description

The BIOPAQ®UBOX modular design is suitable for capacities of 5, 10, 15, 20, 30 and 40 thousand population equivalent (PE). Combining these different modules enables to treat larger PE's. Implementation in progressive steps is possible, avoiding idle capacity and allowing future expansions to ensure long-range projects. The BIOPAQ®UBOX has an exclusive anti-clogging pressurized feeding system, which ensures uniform distribution and an efficient anaerobic treatment of the wastewater, avoiding sludge thickening.

Characteristics of the BIOPAQ®UBOX

- Modular design for capacities from 5 up to 40 thousand PE
- Combining modules enables to treat larger PE's
- No malodorous emissions
- Suitable for urban areas
- Low energy consumption
- Low sludge generation
- Small footprint
- Energy reuse by biogas production
- High retention of biological sludge
- Efficiency on BOD removal > 90%
- Automatic cleaning without stopping the operation



www.paquesglobal.com





Paques: leading in biological wastewater and gas treatment

For more than 40 years, Paques has been the world's leading company in the field of development and construction of cost-effective purification systems for water, wastewater and gases, based on innovative biotechnology. With over 3,000 reference installations worldwide, Paques has helped companies and municipalities succeed at to one of the major challenges of today: to reduce their water and carbon footprints and reclaim valuable resources.

The biogas produced by wastewater treatment plants can be used as green energy in boilers or gas engines. Beyond our headquarters in The Netherlands, Paques has subsidiaries and/or production locations in Brazil, China, India, Malaysia, Thailand and the United States. In many other countries, Paques is represented by licensed partners. This ensures our local presence and the best service for our clients worldwide.

Contact one of our branch offices:



North America
Salem (NH), USA
t +1 (781) 362 4636
e info.usa@paquesglobal.com

Latin America
Piracicaba, Brazil
t +55 (19) 3429 0600
e info.br@paquesglobal.com

Europe (HD)
Balk, The Netherlands
t +31 (0) 51460 8500
e info@paquesglobal.com

India
Chennai, India
t +91 44 2827 3781
e info.in@paquesglobal.com

China
Shanghai, China
t +86 (0) 21 3825 6088
e info@paques.com.cn

Asia Pacific
Kuala Lumpur, Malaysia
t +603 2169 6331
e info_my@paquesglobal.com