

BIOPAQ® RISE

High rate anaerobic technology with external separators

The perfect solution for rebuilds and upgrades of underperforming anaerobic industrial effluent treatment plants





Outstanding anaerobic solution

BIOPAQ®RISE brings anaerobic reactor design to a higher level. It combines the proven benefits from BIOPAQ anaerobic technologies with the unique design advantage that is introduced by working with external separators inside a standpipe.

Unique solution with external separators

The BIOPAQ® RISE system features an anaerobic reactor with external separators placed in a standpipe next to the bioreactor. This design eliminates the need for biomass separation inside the bioreactor while ensuring efficient influent distribution and renewable energy production through biogas.

The closed system is safe for both operators and the environment, meeting discharge and re-use limits while offering design flexibility to accommodate site-specific constraints without compromising performance.

Safe and reliable solution

With a simple two-unit design, the system provides safe and easy maintenance by isolating the standpipe and offers operational flexibility by internal effluent recycling. This makes BIOPAQ®RISE a reliable and efficient solution for wastewater treatment.

Increase treatment capacity of your existing assets

BIOPAQ®RISE is extremely suitable for upgrading underperforming anaerobic bioreactors. It maximizes the re-use of existing assets, improves biomass retention, and increases treatment capacity and process uptime, making it a reliable and efficient solution for wastewater treatment.

About BIOPAQ® RISE

- Fast & safe installation
- Low complexity, low costs
- Ideal for rebuild or upgrade of underperforming reactor
- Highest design flexibility; compatible with all existing anaerobic reactor types
- Simple two-unit design
- Small footprint, also applicable in urban area
- Advanced 3D printed technology

WHAT WE PROMISE

- **Easy to Install:** 3D printed internals in an external standpipe for quick and efficient setup.
- **Easy to Maintain:** External biomass separators allow quick maintenance with minimal downtime by isolating a standpipe, not the entire bioreactor.
- **Easy to Clean:** User-friendly system for straightforward cleaning and upkeep.
- **Enhanced Performance:** Optimizes biomass retention, increases treatment capacity, and boosts process uptime.

WHAT WE DELIVER

- **Less Complex Solution:** Simplified design that reduces the need for extensive modifications or costly rebuilds.
- **Operational Efficiency:** Improved efficiency through internal effluent recycling and easy maintenance.
- **Safety & Environmental Protection:** A closed-loop system that meets discharge and reuse limits.
- **Renewable Energy Production:** Maximized biogas generation for renewable energy.
- **Reliable Performance:** A trusted solution for both new installations and upgrading existing systems.
- **Design Flexibility:** Adapts to site-specific constraints without compromising on performance

**How BIOPAQ®RISE works**

- 01 Influent enters the bioreactor
- 02 Bioreactor effluent with granules enters the top of the standpipe
- 03 In the top of the standpipe the water is degassed
- 04 Biomass is separated from the treated effluent by the 3D printed internals in the standpipe
- 05 The final effluent leaves from the standpipe
- 06 Biomass and recycle flow are returned to the bioreactor where it is mixed with the influent
- 07 Biogas outlet

Together, we're leading the biotech revolution in wastewater and biogas

We are a leading force in biotech wastewater and biogas, driven by a community of scientists, problem solvers, application specialists and exceptional people who all believe in one thing: That protecting the world's water and resources is vital if we are to preserve our planet for generations to come.

Since we founded our company, we've pioneered and developed biotech solutions proven to help our customer effectively and sustainably treat wastewater and generate biofuel to power their operations.

It's safe to say we've grown from our humble beginnings in Balk—to an international powerhouse with more than 3,300 installs in over 60 countries. Our expertise and technologies are trusted by many of the world's most trusted companies.

Whether in brewing, pulp & paper, chemicals or food—we create partnerships that help businesses maximise their resources while reducing their impact.

Our unique blend of expertise, trusted technologies, and global network enables us to guide and empower our customers with solutions proven to help them meet their sustainability goals. By continuing to reinvent, refine, and innovate our technologies we can help protect the planet, communities and best serve our customers.

The world's resources are finite—but our potential is limitless. By working together—we can create a cleaner, more circular future that works for everyone.



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