



**MAPRO**BioGas  
Technology

# Sequential Gas Mixing Systems for Anaerobic Digesters



Simplicity, effectiveness  
and energy saving

About us

# MAPRO<sup>®</sup> INTERNATIONAL

## Innovation and excellence since 1959

For over 60 years we've been designing, building and exporting worldwide blowers and compressors for the aspiration and compression of gaseous fluids, including corrosive ones, which are used in many industrial sectors.

### > OUR MISSION:

Meeting our clients' needs, while offering our collaborators a safe, healthy and rewarding work environment.

### > OUR VISION:

To be a reliable partner for our clients, providing both passion and expertise.




## Our solution

### Sequential gas mixing systems for anaerobic digesters

Our mixing systems are based on the aspiration of biogas from the digester dome and its introduction to the bottom of the digester in injection points which are individually fed sequentially. This ensures effective and uniform sludge mixing.

#### Main Advantages

- Over 50% energy savings compared to other mixing technologies
- Simple and cost-effective maintenance
- No moving parts in the digester and no corrosion
- No surface crust formation on sludge
- Reduced sludge sedimentation



**Treatment of sludge from  
sewage treatment plants,  
food industry, agricultural  
activities and animal farms**

## Case Study

### > THE CHALLENGE

The plant in question was using recirculation pumps in service for 12 hours a day with an energy consumption of 357 kW/h per day. We were tasked with dramatically reducing energy consumption without compromising mixing effectiveness.

### > THE SOLUTION

Relying on our advice and expertise, the client chose to upgrade the plant with a sequential gas mixing system with a MAPRO RFL 40 G compressor, which feeds different injection points operating 8 hours a day, with a total energy consumption of 136 kW/h per day.

### > RESULTS

Following the mixing system upgrade, energy consumption was reduced by 221kW/h per day, equivalent to approximately 81,000 kW/h year.

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## Contact us

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