### biofuels biorefining

Delivering reliable filtration for biofuels this year and beyond

# **Boosting biofuel quality**

or Amafilter®, which is part of Filtration Group, this year has been one of strong progress in supporting the biofuels industry with reliable, highperformance filtration solutions.

The biofuels sector continues to evolve rapidly, driven by the global push for decarbonisation, sustainability mandates and the increasing complexity of feedstocks.

Producers are processing a wide range of materials, from used cooking oils (UCO) and animal tallow to next generation biofuels derived from algae and waste residues.

Each feedstock presents unique challenges, particularly in managing solids content, viscosity and fouling risks.

Achieving high-quality, compliant biofuels requires a filtration system that is not only robust, but also flexible enough to handle varying production conditions.

## Addressing industry challenges with innovative filtration

Amafilter's cake filtration technologies have proven critical in overcoming these challenges.

These filtration systems allow for efficient removal of impurities while maintaining continuous throughput, minimising downtime and extending the life of filter media.

In particular, pressure leaf filter systems and the Amafilter® Cricketfilter® automated system have been invaluable in applications with high solid loads and complex feedstocks.

These technologies not only improve yield, but they also help producers meet increasingly strict regulatory standards and quality expectations.

More recently, as part of the company's commitment to continuous innovation, "The outlook for biofuels remains positive. With global decarbonisation targets, rising renewable energy demand and policy support, there is strong motivation for investment in this sector"

Amafilter® introduced several enhancements to the Cricketfilter® automated system.

Most notably, the new bayonet opening design has been incorporated, delivering greater reliability, improved operational efficiency and easier handling.

The second generation
Cricketfilter® provides
producers with even more
precise control over cake
discharge, reduces maintenance
requirements and enhances
overall process stability.

Feedback from early adopters has been extremely positive, with many reporting smoother operations, fewer interruptions and more consistent product quality.

This launch is a testament to Amafilter®'s dedication to meeting the evolving needs of the biofuels industry.

## Collaborative solutions for maximum efficiency

In addition to advancements in mechanical filtration, Amafilter<sup>®</sup> has strengthened integration with PCI Membranes<sup>®</sup>, enabling the combination of cake filtration with advanced membrane separation for polishing, fractionation and impurity removal.

By offering a complete process solution, producers can achieve both operational efficiency and product quality targets. This collaboration has become increasingly important as biofuel producers look to optimise their operations while maintaining compliance with environmental and safety regulations.

High energy prices have underscored the need for efficiency at every stage of biofuel production.



Cricketfilter Automated System

Filtration systems that require less energy-intensive cleaning, minimise waste and extend operating cycles have become essential for reducing operational costs without compromising reliability.

Amafilter®'s designs focus on these priorities, helping plants maintain stable operations even during periods of energy market volatility.

#### **Highlights of this year**

Several key achievements have defined Amafilter<sup>®</sup>'s year in the biofuels sector:

- Cricketfilter® 2nd Generation
  Bayonet launch: This major
  product enhancement
  has been widely adopted,
  allowing producers to improve
  process control and reduce
  maintenance downtime.
- Large-scale project deliveries: Amafilter® successfully delivered several tailor-made filtration systems to high-volume biofuel producers, demonstrating the scalability and flexibility of our solutions.
- Enhanced technology integration: Collaboration with PCI Membranes® has enabled customers to combine mechanical filtration with membrane processes, offering complete, end-to-end solutions for increasingly complex feedstocks.

These milestones highlight not only the company's technical expertise, but also ongoing commitment to helping



B1 Tubular Membranes

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biofuel producers achieve operational excellence.

## Navigating market challenges

Despite strong demand, the biofuels sector has faced several challenges this year.

High energy prices and fluctuating feedstock availability have put pressure on operational margins. For many producers, these conditions have emphasised the importance of reliable, energy-efficient processes.

Amafilter® has responded by designing filtration solutions that reduce energy consumption, extend equipment life and minimise downtime, helping producers maintain profitability even in a volatile market.

Additionally, regulatory compliance remains a top priority. Producers are under increasing pressure to meet sustainability and quality standards, particularly in markets such as Europe and North America.

Amafilter® filtration systems are designed to support these



Safety driven hydraulic Bayonet system

goals, ensuring that impurities are efficiently removed and final biofuel products consistently meet industry and regulatory requirements.

## The current biofuels market: Opportunities and investment

The outlook for biofuels remains positive. With global decarbonisation targets, rising renewable energy demand and policy support, there is strong motivation for investment in this sector.

Filtration, as a critical enabling technology, plays a vital role in ensuring that biofuel production is efficient, sustainable and scalable.

From the company's perspective, this is a good time to invest in biofuels. Producers who prioritise innovation, operational efficiency and process reliability are well-positioned to take advantage of market growth.

Effective filtration systems are a key differentiator, helping

plants maintain product quality, reduce waste and optimise energy use.

#### **Looking ahead to 2026**

Amafilter® and PCI Membranes® are focused on continuing their innovation trajectory into the new year.

Building on the success of the Cricketfilter® 2nd Generation Bayonet, the company will expand its portfolio of filtration technologies to address the increasingly complex demands of biofuel producers. Ongoing initiatives will prioritise:

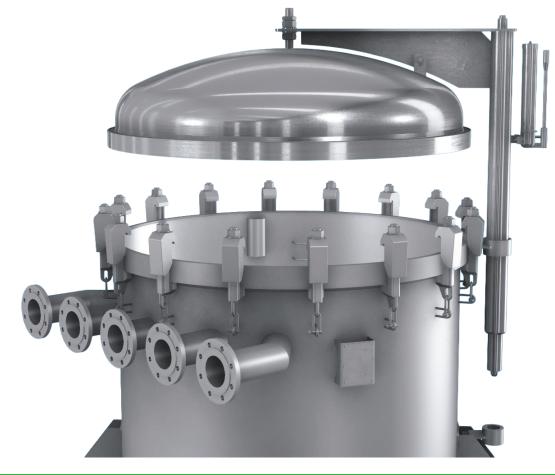
- Sustainability: Minimising energy usage, reducing waste and enabling the processing of diverse feedstocks;
- Operational efficiency: Improving throughput, reducing downtime and extending equipment life;
- Adaptability: Designing flexible solutions capable of handling new feedstocks and evolving production requirements.

The mission is clear: to remain a trusted partner to the biofuels industry, delivering world-class filtration solutions that enable producers to achieve both performance and sustainability targets.

#### Conclusion

This year has been a year of progress, innovation and resilience for Amafilter. With product launches such as the Cricketfilter. 2nd Generation Bayonet, enhanced integration with PCI Membranes and a focus on energy-efficient operations, the company has reinforced its position as a leading provider of biofuel filtration solutions.

Looking forward to 2026, the organisation is committed to helping producers navigate challenges, maximise efficiency and capitalise on the growth opportunities that the biofuels market continues to present.



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