

Providing innovative, integrated solutions to help customers achieve consumer-safe food and beverage products at the highest efficiency

Food & Beverage Mission

Product quality is critical for the food and beverage industry, and while the requirements vary across each market segment, the commitment to safety is constant.

From producing dairy products to ensuring the integrity of each unique bouquet and flavor intensity in a bottle of wine, everyday Pall is there, helping customers improve product quality, maximize yield, reduce operating costs and safeguard health.

Our ability to identify and solve customers' complex challenges is why Pall is a Food & Beverage leader in filtration, separation and purification solutions. With our unique breadth and depth of application knowledge and a diverse product offering in critical applications, Pall leverages our strong global network to apply learnings and innovation in one industry to accelerate innovation in others.

It's how we've approached our calling since 1946, pushing the limits of science and technology, solving challenges that customers believe are unsolvable.

"One of the best things about working with Pall Corporation is their dedication to helping their customers achieve their goals." - Evello

Food & Beverage Portfolio

Higher quality standards and a global focus on food safety have led to stricter regulations and compliance requirements in the food and beverage industry. These regulations for food and beverage manufacturers and their suppliers include requirements for products intended to come in direct or indirect contact with food and are inclusive of filters used in the production process.

To support the stricter requirements, Pall has qualified a specific range of food contact compliant products for the Food and Beverage market. Our portfolio covers a broad range of products and applications from coarse clarification to sterilizing filtration as outlined below with Declarations of Compliance readily available on website.

Cartridge filters

- for coarse filtration, microbial reduction and sterilizing efficiency
- · metallic, cellulosic, inorganic or polymeric media
- small, standard and high capacity formats
- Filter sheet technology
- Utility filters
 - air and gas filtration
 - steam filtration
 - water filtration

- Coalescers and separators
- Single and multi-round housing assemblies
- Crossflow filtration modules and systems
- Filtration monitoring tools
- Adsorption technology

Particle and Microbial Control

Pall's pre and final membrane filters serve as the brand protection step typically positioned prior to packaging.

Pall offers a wide portfolio of prefiltration options from melt blown style depth filters providing broad particulate removal, star pleated for gel removal and pleated cartridges for fluids with a narrower particle size distribution. Additionally, our unique large diameter formats enable the most cost-effective solutions for higher flow rate applications.

Our membrane filters are qualified for removal of industry specific bacteria and spoilage organisms that can adversely impact taste and product shelf-life.



"Pall has helped us to have peace of mind that all our packaging is of the highest quality. Our customers are reassured that our filtering processes ensure the perfect pint every time."

- Agricola Bottling Company

Polishing Filtration

Filter sheet-based technologies have a unique matrix of components that provide an excellent combination of adsorption, surface and depth filtration.

These products remove unwanted substances while maintaining the quality-enhancing components that result in a clear, bright product.

Pall makes a variety of differentiated depth filter formats to cover applications including turbidity reduction, polishing filtration, colloid, chill haze and color removal.



Utility Filtration

Utility fluids like water, air, steam and other gases support all manufacturing processes and represent the basic building blocks which are used to create products or enable plant operations. Their quality and handling influence downstream applications and impact overall smooth and economic plant performance.

Securing the quality of utilities based on their end use requirements is a good manufacturing approach which proactively eliminates problems, safeguards the process, and allows food and beverage manufacturers to focus on the larger challenges they face. Pall Corporation can help our customers with these basics.

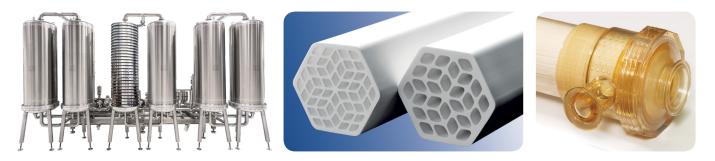


Automated Filter Systems

As customers increase their production volumes, they often look towards more automated solutions to improve product quality, efficiency, consistency and yield.

Based on our core technologies, Pall systems for clarification, stabilization, upcycling of side streams and microorganism removal enable food and beverage producers to optimize their processes at the lowest total cost of ownership.

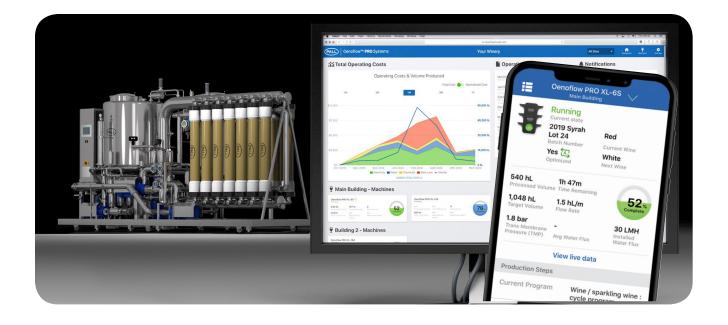
Our newest IoT solutions enable predictive analytics and remote operation and servicing. Furthermore, the systems are equipped with our proprietary algorithms based on years of operating experience to maximize run time and cost.





"Since installation, the CBS System provides a reliable performance with a continuous output of beer products with the required colloidal stability. With the CBS technology, water consumption and beer losses dropped significantly. In addition, stabilization costs are low and due to hectoliter contracts predictable in advance. After 10 years of continuous operation, we still believe our decision to use Pall CBS technology was the right choice."

- Spendrups



"As a contract winemaking facility based in Kent, UK, our PALL XF filter has been instrumental in increasing our work-flow efficiency as we get wines ready to bottle. The XF's ability to monitor filtration speed, pressure and volume and then clean accordingly saves us valuable time and manpower whilst maintaining a quality product."

- Defined Wines

Filtration Monitoring Devices

In addition to a complete filter portfolio, Pall offers equipment for process and filtration monitoring.

The Palltronic[®] Compact Touch integrity test device provides automated pressure decay results. This easy-to-use unit ensures a filter is operating as expected to retain microorganisms.

With use of this monitoring device, our customers avoid costly issues such as product contamination, product losses, reprocessing and production delays.



Unmatched Customer Support

SLS Global Technical Support consists of application experts and scientists in food science, master brewing, oenology, chemistry, microbiology and process engineering. The team focuses on ensuring that the Pall products you choose are suitable for your application and offers a broad range of support, providing custom tailored solutions for your unique situation:

- Fluid characterization / Analytical testing
- Process monitoring / Optimization
- Plant surveys
- Product studies
- Problem solving solution
- Filtration best practice training
- Heat pasteurization replacement

Our qualified systems service personnel are also available to carry out emergency or scheduled maintenance service for verification of the operating system, ensuring optimal use. Service contracts are available. Additionally, our IoT based solutions enable remote support for predictive analytics and facilitate troubleshooting.



About Pall

Pall Corporation provides critical filtration, separation and purification solutions to meet the demanding needs of a broad spectrum of life sciences and industrial customers around the globe.



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Visit us on the Web at www.pall.com/foodandbev Contact us at www.pall.com/contact

Pall Corporation has offices and plants throughout the world. To locate the Pall office or distributor nearest you, visit www.pall.com/contact.

The information provided in this literature was reviewed for accuracy at the time of publication. Product data may be subject to change without notice. For current information consult your local Pall distributor or contact Pall directly.

IF APPLICABLE Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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