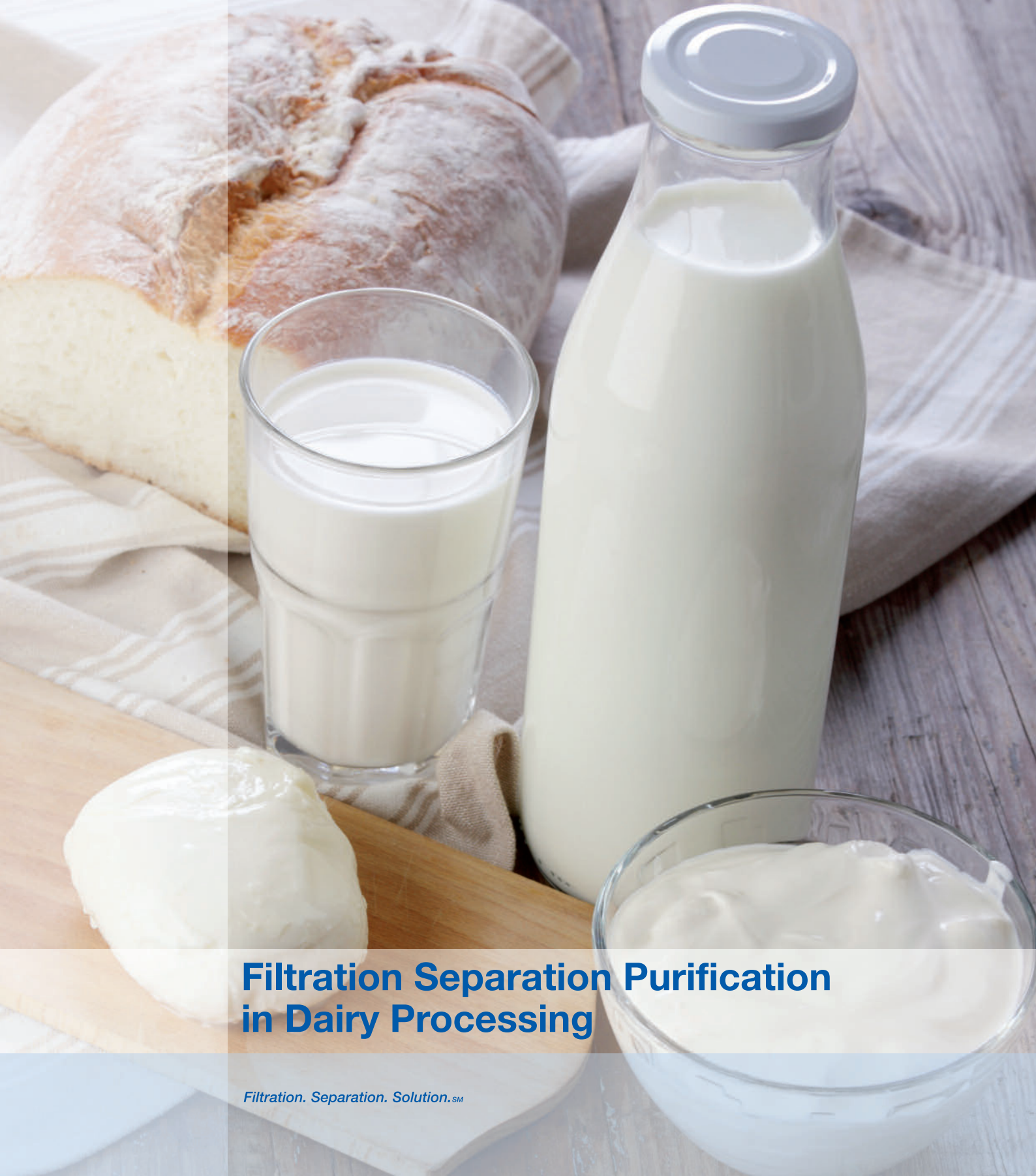




Food and Beverage



Filtration Separation Purification in Dairy Processing

Filtration. Separation. Solution.SM

Filtration Separation Purification in Dairy Processing



Manufacturers of dairy products and value-added ingredients from milk require essential process steps to protect flavor, ensure nutritional value, and prevent microbial or physical contamination. Pall's filtration and separation technology and expertise can help you protect products, reduce costs, improve yield, and maintain a high level of process control. With unique membrane filter technology, innovative high flow filter configurations and a full range of value-added filtration, separation and purification solutions to support dairy producers worldwide, Pall can bring sustainable value to your production process.

Innovative Dairy



Consumer Protection

Dairy products require essential process steps which prevent and remove microbial contamination while continuing to maintain high nutritional quality. Pall's wide range of filtration and separation solutions help achieve multiple product and process safety needs.

- Product quality protection
 - Ensuring reliable microbial barriers
 - Maintaining nutritional value of heat sensitive ingredients
- Food contact compliant filter materials

Cost Savings

With many of the complex challenges faced by the dairy producer driven by cost savings, Pall filtration technologies can be a tool of choice for optimized profitability.

- The right selection of high efficiency filters prevents costs associated with contamination and product non-conformance.
- Properly designed and sized filtration installations, together with new technology High Flow cartridge designs can reduce filtration and filter maintenance costs.
- Utilities (water, steam, air & gas) of suitable quality provide optimized equipment protection and reduced maintenance downtime.
- Simplified processes provide maximized equipment capacity by faster operation and increased product yield.
- Filter monitoring prevents premature filter change-out.
- Longer operating cycles and recycling provide further savings in water and cleaning chemicals, as well as reduced waste water volumes.

Innovation

The demand for new and specialty products with unique organoleptic properties, nutritional profiles or added functionalities is driving dairy innovation.

- A wide range of filter types and formats satisfies multiple requirements, from laboratory to industrial scale
- Pall membrane and chromatography technologies provide precise separations, from microfiltration to the production of customized milk fractions
 - Microfiltered milk with fresher taste and long shelf life
 - Milk and cheese concentrates
 - High value functional ingredients

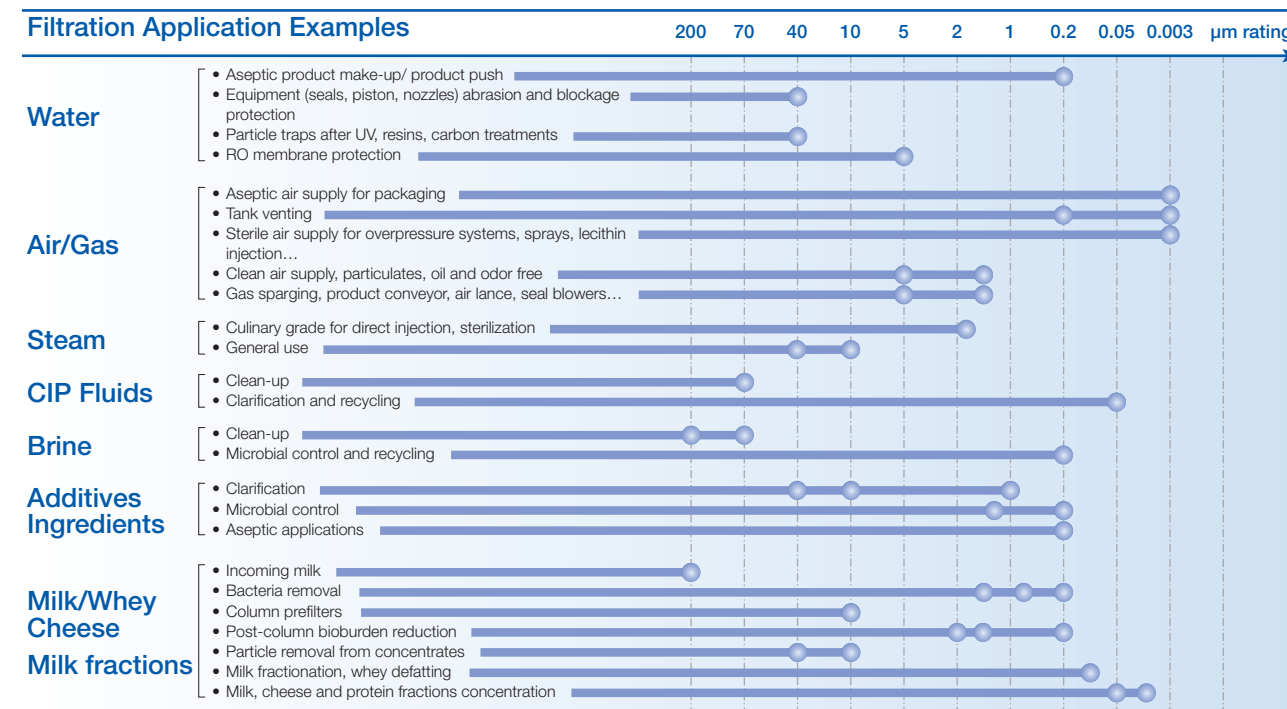
Sustainability

The Pall filtration and separation product portfolio, designed for higher capacity, longer life, optimized water and chemical usage, recycling and re-use, provides innovative solutions to your water and environmental management programs.

- High capacity filters for minimized disposal costs
- Microflow XL systems for brine recycling
- Pall Aria™ microfiltration systems for reduced water usage



Filtration is essential to dairy processes, from raw materials to product packaging.



Process Reliability

Reliable barriers in manufacturing processes are essential for product safety and brand protection, preventing pathogen entry at points where a product might be exposed to foreign matter, microbiological contaminants or process survivors. Filtration solutions based on the Pall Total Fluid Management™ (TFM) program provide these reliable barriers. The TFM program also targets secondary fluids, such as water, steam and gas utilities to prevent premature equipment failure and the creation of potential contaminant entry paths.

- Milk products and ingredients
- Aseptic packaging utilities
- Utilities and process equipment protection

- Superior separation efficiencies
- Durable performance
- Supporting documentation
- Integrity test programs

Product Safety

Prevention of microbial or physical contamination of the final product by contact with equipment or process fluids relies on essential filtration steps in the process. Specific solutions are available to satisfy the spectrum of filtration requirements ranging from general purpose clarification all the way up to sterilizing grade filtration.





Filtration Separation Purification in Dairy Processing

Food contact compliant filter materials

Strict and controlled material selection, stringent manufacturing procedures, and extensive quality assurance, which are essential for filter products supplied to the dairy industry, are distinct characteristics of the Pall Food and Beverage product portfolio. As there are no globally harmonized regulations for food contact compliance, Pall can help for your filtration and separation product and process selection to support your local Food and Water requirements.

► Declarations of Compliance available on line at www.Pall.com/FoodandBev

Pall Global Services

Pall, a global leader in filtration and separation technologies, offers a complete support service to the Food and Beverage industry to revolutionize the management of filtration systems. Using state-of-the-art technology, our site-support engineers take full control of all aspects of fluid filtration, allowing you as a manufacturer the time to focus on what you do best – running your business.

Qualified Pall after-sales service and support ensures the smooth operation and troubleshooting of customer equipment and filtration applications.

Our experts on the Pall Service Operations team have ready access to our global network of scientists and engineers to leverage filtration expertise and provide rapid response to process safety needs.



Services	Value Added
Process and Filter Application Development	Defines customer solutions through bench scale and pilot test programs, screening services and filterability studies
Water Appraisal	Recommends methods and technology to reduce, reuse and recycle water, and quantifies the savings that can be achieved
Training Seminars	Provide information that can assist in improving to improve manufacturing reliability, regulate workplace practices and help maintain compliance within regional and local legislation
Troubleshooting and Consultancy	Maps the route to contamination control and cost savings by assisting plant managers in identifying specific quality and cost issues through process analysis, contamination analysis and troubleshooting services
System Maintenance	Helps prevent unscheduled downtime and associated costs, and promote long filtration system service life



Pall Corporation

Pall Food and Beverage

25 Harbor Park Drive
Port Washington, NY 11050
+1 516 484 3600 telephone
+1 866 905 7255 toll free
foodandbeverage@pall.com

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

Pall Corporation has offices and plants throughout the world. For Pall representatives in your area, please go to www.pall.com/contact

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

Because of technological developments related to the products, systems, and/or services described herein, the data and procedures are subject to change without notice. Please consult your Pall representative or visit www.pall.com to verify that this information remains valid.

© Copyright 2010, Pall Corporation. Pall, , Pall Aria and Palltronic are trademarks of Pall Corporation. Total Fluid Management is a Service mark of Pall Corporation.

® Indicates a trademark registered in the USA. *Filtration. Separation. Solution.sm* is a service mark of Pall Corporation.

'ENABLING A GREENER FUTURE' is a common law service mark of Pall Corporation