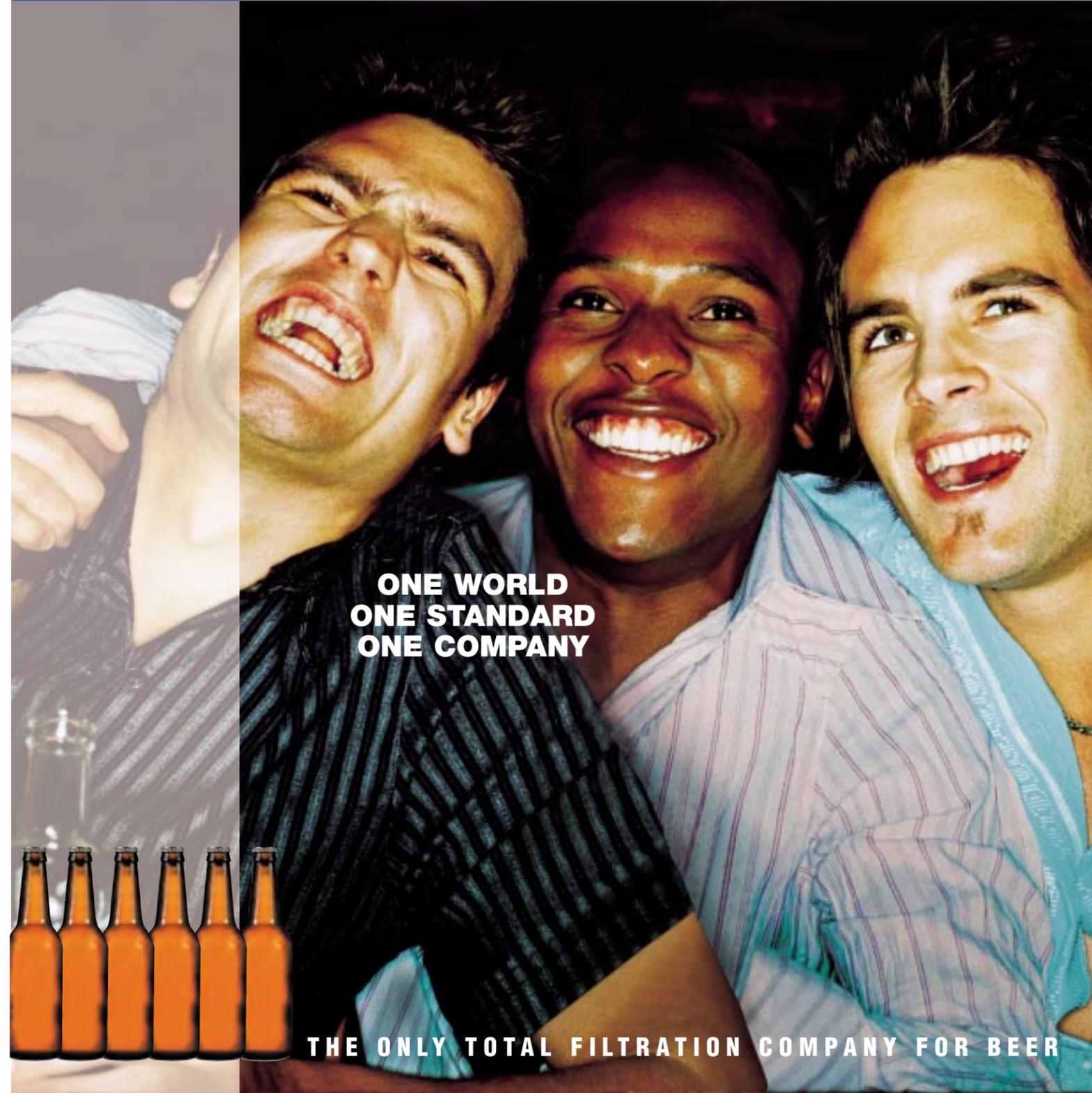




Food and Beverage



**ONE WORLD
ONE STANDARD
ONE COMPANY**

THE ONLY TOTAL FILTRATION COMPANY FOR BEER

Filtration. Separation. Solution.SM



Food and Beverage

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Reorder Code: FB-125-B

Filtration. Separation. Solution.SM

One perfect partner for beer masters

Pall is the only choice

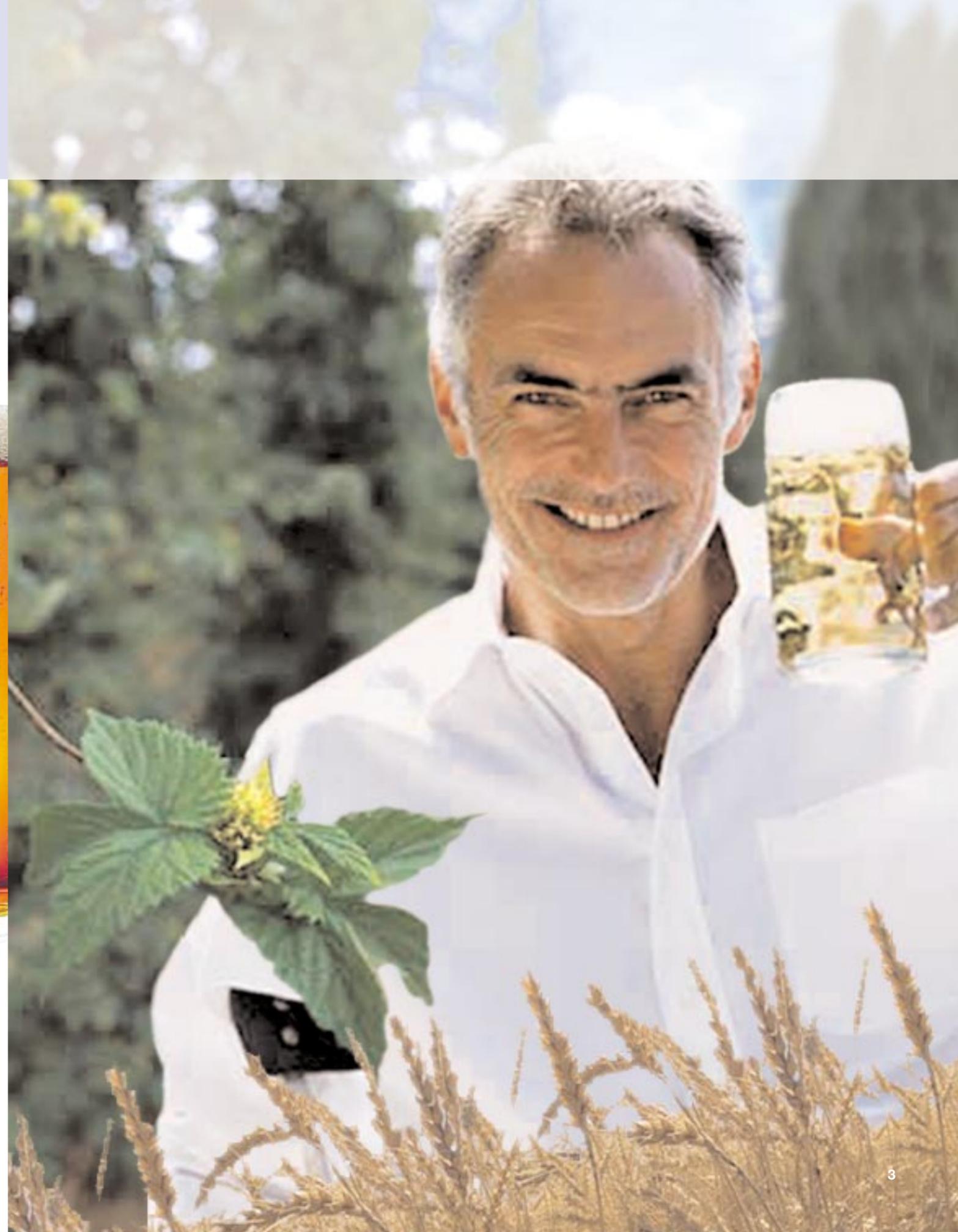
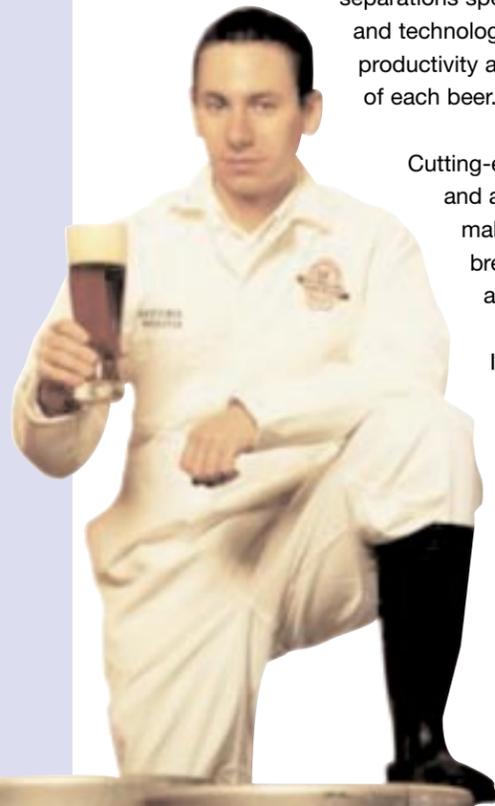
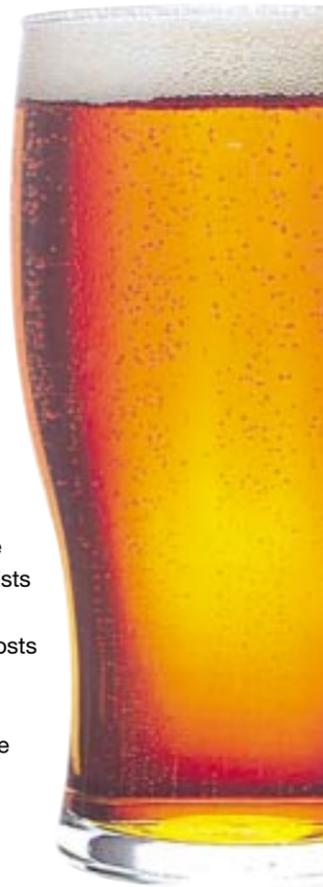
Brewers worldwide turn to one company for all of their filtration process, product and service requirements – Pall. With the acquisition of SeitzSchenk, the German manufacturer of filter media and systems for brewing, Pall offers the full range of value-added products that are the number one choice for breweries worldwide.

Pall understands that precision separations are crucial to the quality, taste and color of a Pils, lager or strong ale. Together, Pall and SeitzSchenk's separation technologies are integral to more leading beer production facilities than any others. Pall advanced filter systems and services enable beer producers to hone their process and reliably achieve the delicate balance today's consumers demand.

Pall's 45 brew masters work in partnership with customers at the local level, providing filtration expertise and rapid response to process issues as they arise. With just a phone call, each Pall customer gains immediate access to a global network of filtration and separations specialists. Together, the Pall engineering and technology team helps customers cut costs, increase productivity and protect the consistency and character of each beer.

Cutting-edge technologies, brewing process expertise and a dedicated global network of filtration specialists make Pall the perfect partner to protect their brewing process, drive down their production costs and increase their profitability.

In the world of beer filtration, Pall provides one source and one standard - the best.



One word means 'total fluid management' - Pall

Pall gives you complete control

Controlling the filtration process is a key element in realizing the rewards of "total process control" and producing a fine quality end product. When you consider your time and costs associated with filter and equipment purchases, change-out, process downtime, pre-treatment and unexpected contamination challenges, it becomes evident that performance and filtration service life can ensure product quality and reduce overall operating costs.

Pall puts at your disposal the widest range of products and expert support available giving you complete control over the entire beer-making process.

Product control

Ensures the highest standard of precise, consistent product quality.

Time control

Outsourcing technical expertise requirements frees you to focus on your core business.

Resource control

Streamlining your filtration process enables you to achieve superior separations efficiency and performance.

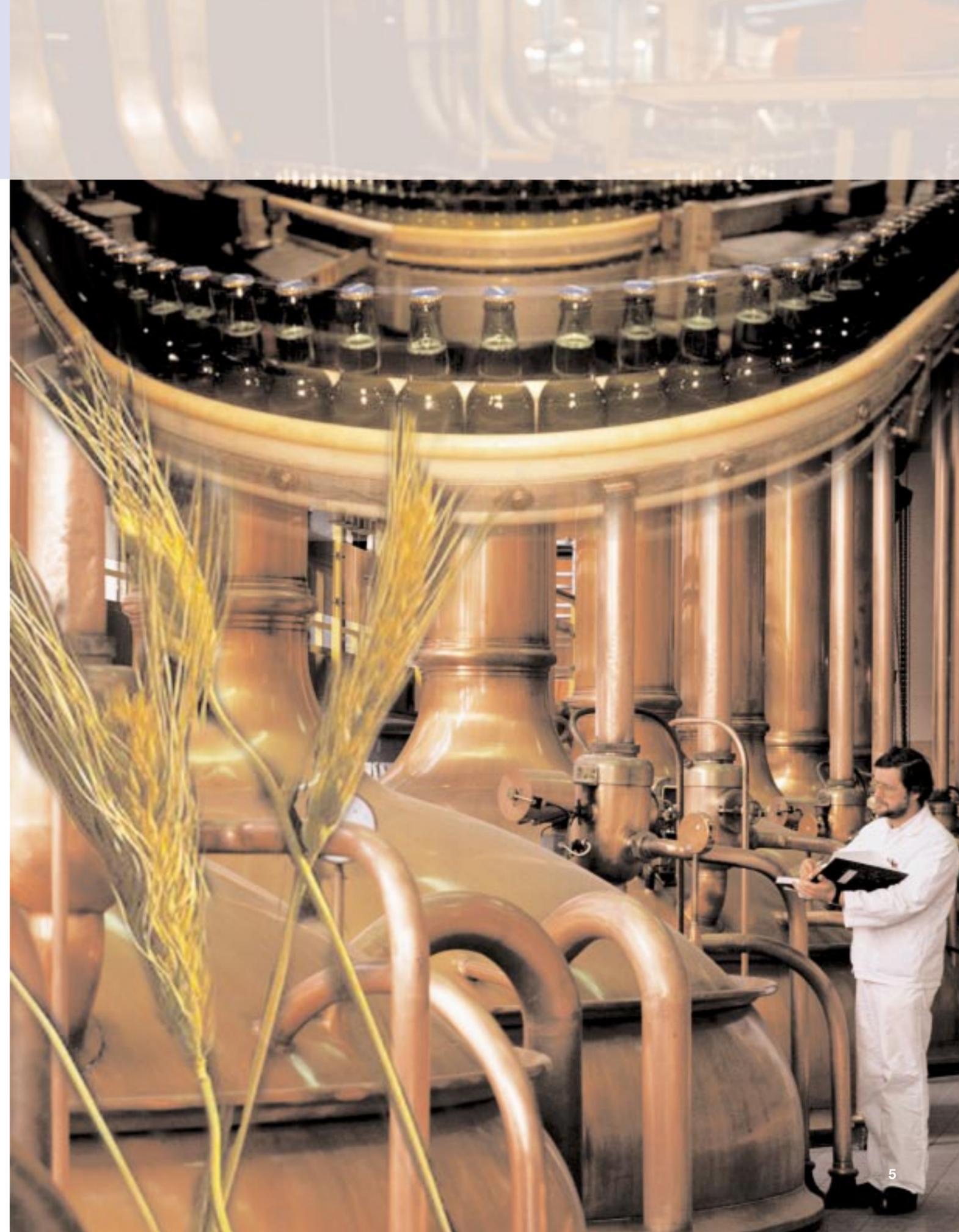
Cost control

Lower your operation and maintenance costs and maximize production.

Up-Time control

Connect directly to process solutions and service with a single phone call.

Wherever your beer is produced, there's only one name you need to know:
Pall Food & Beverage.



One filtration company does it all, from malt to bottle

CLARIFYING FILTRATION

Pall Membrane System

Ecoflux® Candle Filters

Ecoflux® Smartline System

PRIMUS III ZHF/Z Filter

Seitz® Sheets (pads)

NIRO Plate & Frame Sheet Filters

STABILIZATION

ZHF/STR Filters

Seitz® PVPP Sheets (pads)

SUPRAdisc™ II Filter

PARTICLE FILTRATION

Profile® Star Filters

Seitz® Sheets (pads)

SUPRAdisc™ II Filter

NIRO Plate & Frame Sheet Filters

Nexis® Filters

The business of producing beer

The beer-making process must meet high standards for preserving the unmistakable taste, flavor, purity and freshness of a particular brew. Creating that unique taste and maintaining uniformity of flavor from bottle to bottle, from brewery to brewery, from brand to brand, requires delicate precision.

Raw water purity, microbial stabilization, air and gas sterility, yeast and bacteria removal, clarification, sterilization and final filtration are vital to maintaining that balance. Contaminants such as particles, crystals, treatment residue, organic aggregates, bacteria and yeast can jeopardize the beer's taste. Each Pall filter becomes a critical control point, providing you with precision separations, reduced risk and total process control.

Always advancing technological innovation, Pall products safeguard quality and preserve product integrity. With these powerful tools, you can continue to improve product quality and process yield.

Beer Clarification

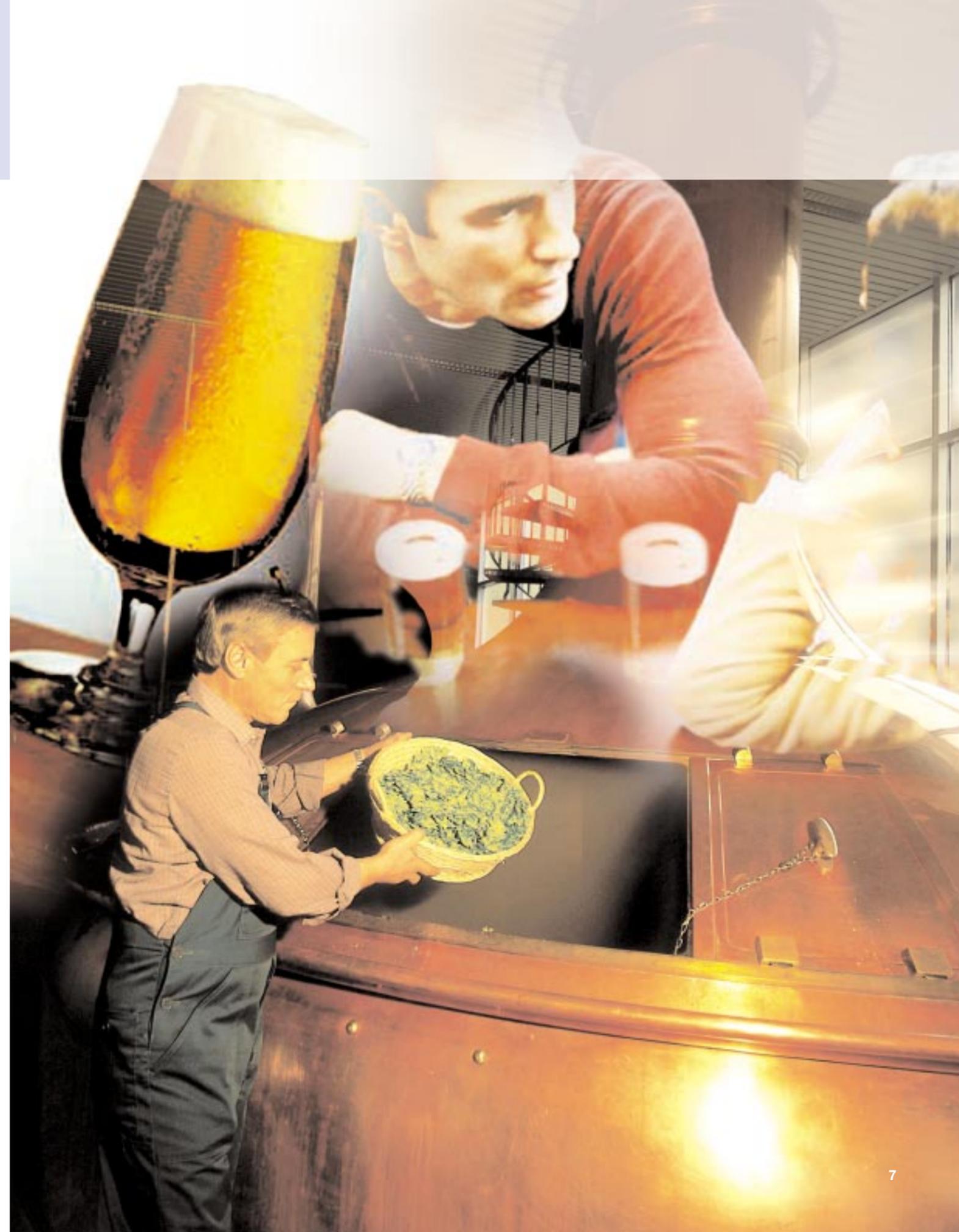
Beer clarification removes entrained solids and yeast from the fermentation and maturation steps. Pall leads the way in the development of beer making standards such as innovative clarification technologies, alternative filter aids and cross-flow technologies.

Beer Stabilization

Be it PVPP or Silicagels, or both in combination, Pall provides the system and the stabilization media for a stable brewery product.

Particle Filtration

Pall's particle filtration technology protects beer from unwanted particles after primary filtration or as a last critical control point upstream of filling.



FINE FILTRATION

Profile® Star Filters

Profile® Filters

SUPRAdisc™ II Filters

Seitz® Sheets (pads)

Ultipor® N₆₆ Filters

BEER RECOVERY SYSTEMS

PallSep™ VMF Filter

Keraflux Filter System

FINAL (MEMBRANE) FILTRATION

Cluster Filter System (CFS)

INTEGRITY TESTING

Palltronic® Compact

GAS PURIFICATION

CO₂/Air: Emflon® PFR/PFA Filters

Steam: PSS® Filters

WATER PURIFICATION

Aria™ Membrane Systems

Ultipor GF Plus® Filters

Ultraleat® High Flow Filters

Magnum Filters

BOTTLE WASHING

Ultipor GF Plus® Filters

Final Filtration

Removal of yeast and beer spoiling bacteria upstream ensures consistent quality before canning or bottling, allows storage under defined conditions and enables brewers to have a final correction of haze and color. To ensure a clear and bright beer, Pall's final filtration technology provides a biologically stable beer and removes these contaminants without affecting the beer's flavor and unique characteristics. CFS is the leading technology and ensures consistent and reproducible production runs each and every time.

Beer Recovery Systems

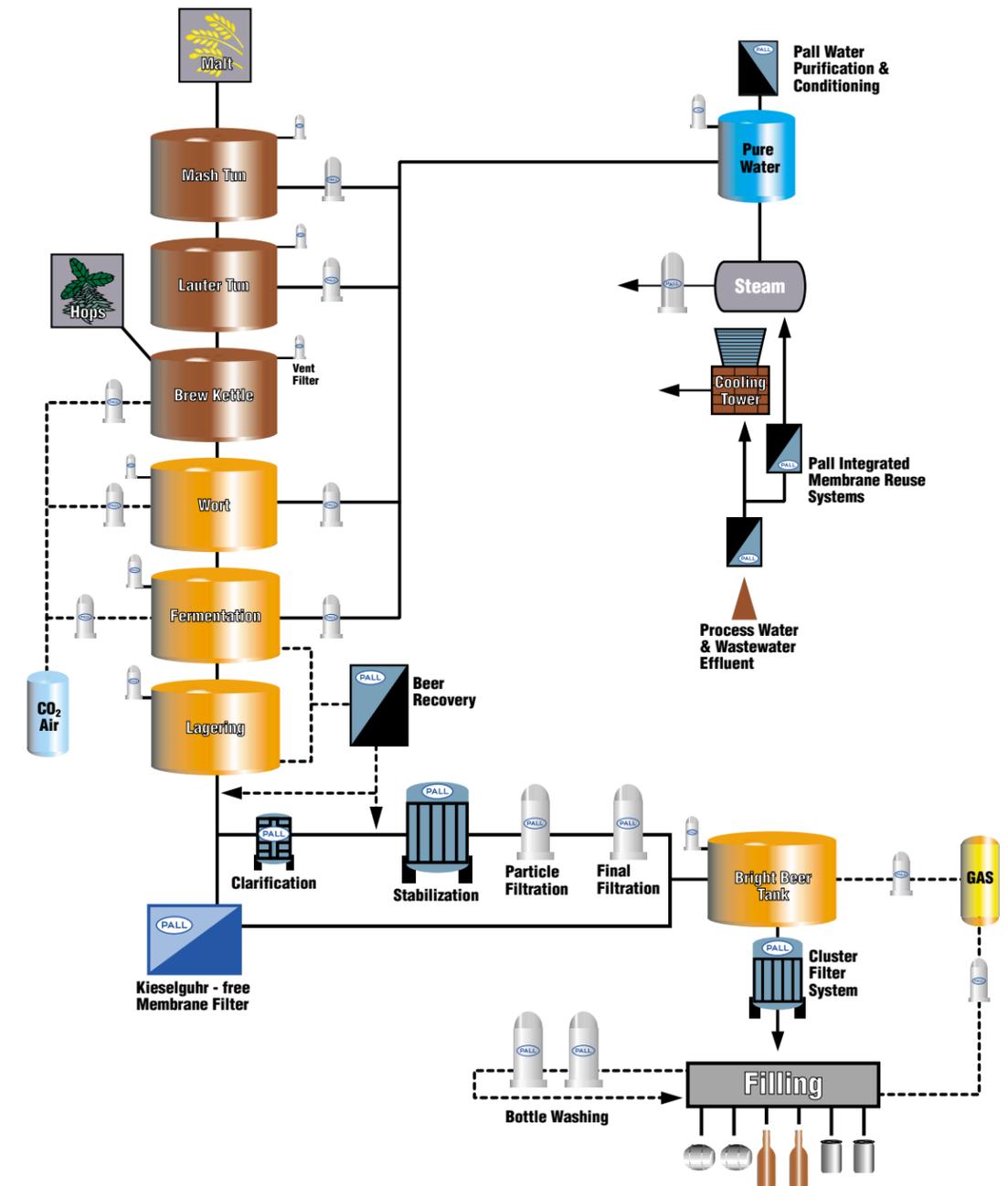
Recovering a high quality beer from spent yeast is one of the few areas where real cost reductions are still achievable. Pall has the technology and experience to help a brew master capitalize on this cost saving opportunity.

Gas Purification

Gas impurities during carbonation can affect product uniformity. Pall's technology purifies air and carbon dioxide and lowers the process risks associated with carbonation. Pall filters also provide sterile air and particle free steam for brewing processes.

Water Purification

Water used in beer production must meet the highest standards of purity. Pall's integrated membrane systems are an absolute barrier to particles, oxidized metals, cysts, oocysts, bacteria, viruses and dissolved solids. Pall membrane systems and membrane-coupled bioreactor systems help breweries achieve flawless environmental records by reclaiming and reusing wastewater for utilities. This also saves money on water, heat and energy.



One performance standard everywhere in the world - the best

Services tailored to your needs

Precision filtration products and dedicated scientific staff empower you to consistently achieve the highest process performance and product quality. The wealth of shared knowledge and access to a global network of specialists ensures rapid resolution of filtration and separation issues wherever they occur. This high level of service is unique to Pall.

Working in partnership with customers, Pall brew masters and filtration specialists share scientific information, make recommendations and provide local, real-time responses to improve the filtration performance of any process. In addition, they solve difficult stabilization and clarification issues. Pall laboratories and on-site testing enable Pall beer specialists to recommend the most cost-effective filtration process and separation solution available.

In addition, Pall Food & Beverage provides a variety of services tailored to the beer brewing process. Partnering with Pall adds value and can save you time and money. Audits and appraisals, engineering partnerships and maintenance contracts are available to you through the local Pall beer specialist.

Service	Value Added
Brewery Process Audits	Assists brew masters to identify cost and quality issues through a process providing contamination analysis and troubleshooting services. This service is available for filter lines or complete breweries.
Filter Engineering Partnerships	Works with brewers to plan and engineer complete filter cellars, recovery plants and to automate existing filter installations.
System Maintenance	Minimizes unscheduled maintenance downtime and unplanned expense while ensuring the life of a filtration system.
Integrity Testing	Provides quality assurance and system performance validation.
Water Resource Appraisals	Recommends methods and technology to reduce, reuse and recycle water, chemicals, solid and liquid waste and quantifies the savings that can be achieved.
Technology Transfer Seminars	Enables customers through transfer of technology and separations know-how to customize and improve filtration performance, manufacturing reliability and economics of their beer labels.

With Pall, you have one source and one standard everywhere in the world – the best.

