www.parker.com/dhbeer



Automated Filtration Solutions

A Capability Guide

Parker | domnick hunter

Agidens

Microfiltration is playing an increasingly important role in the production of quality, stable beers for the lowest cost of operation. In order to achieve maximum control, efficiency and traceability of these critical processes, automation is an absolute requirement.

Together with Agidens Process Automation, Parker domnick hunter can provide fully automated, integrated and supported microfiltration solutions to control the quality of your beer at the lowest production cost.



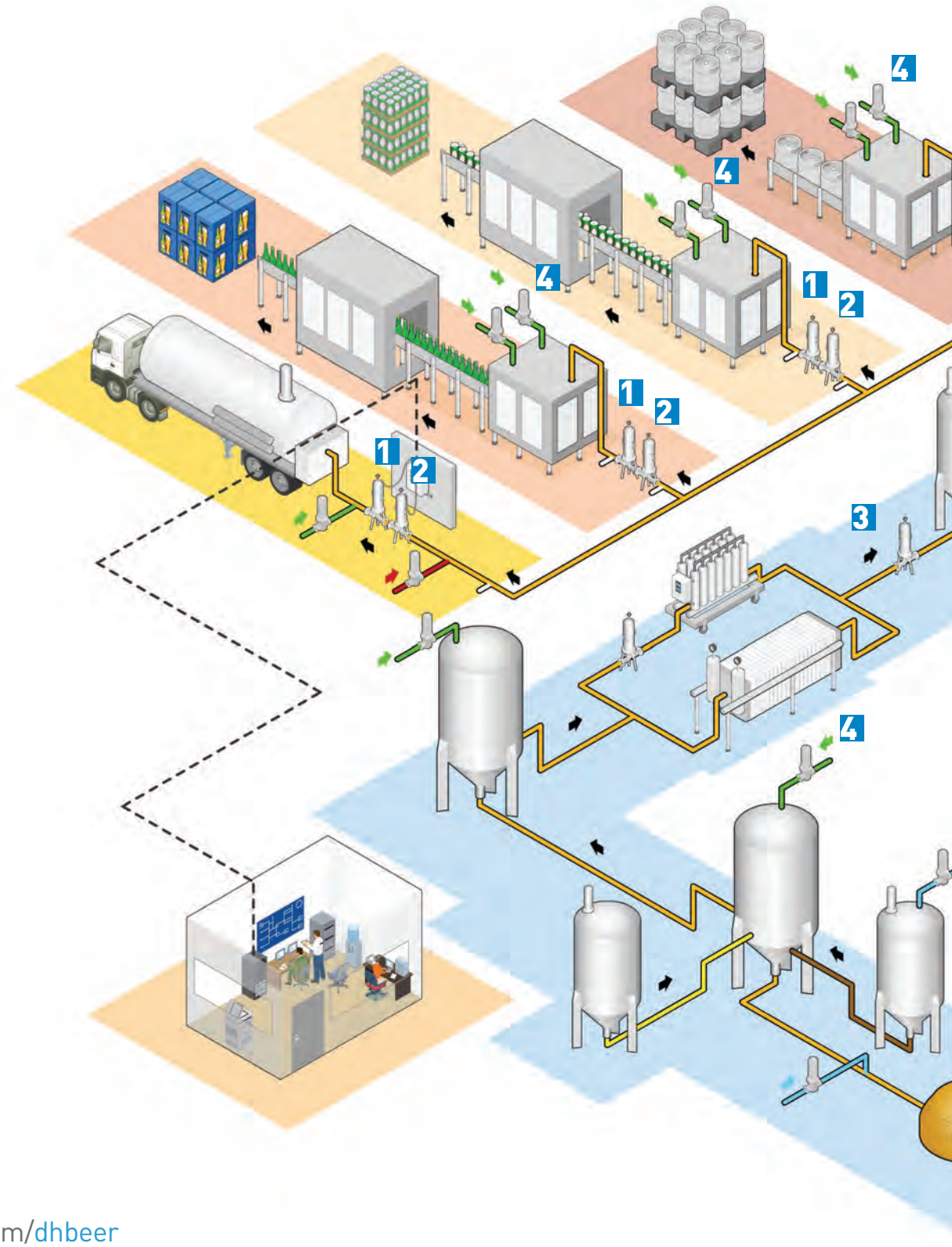
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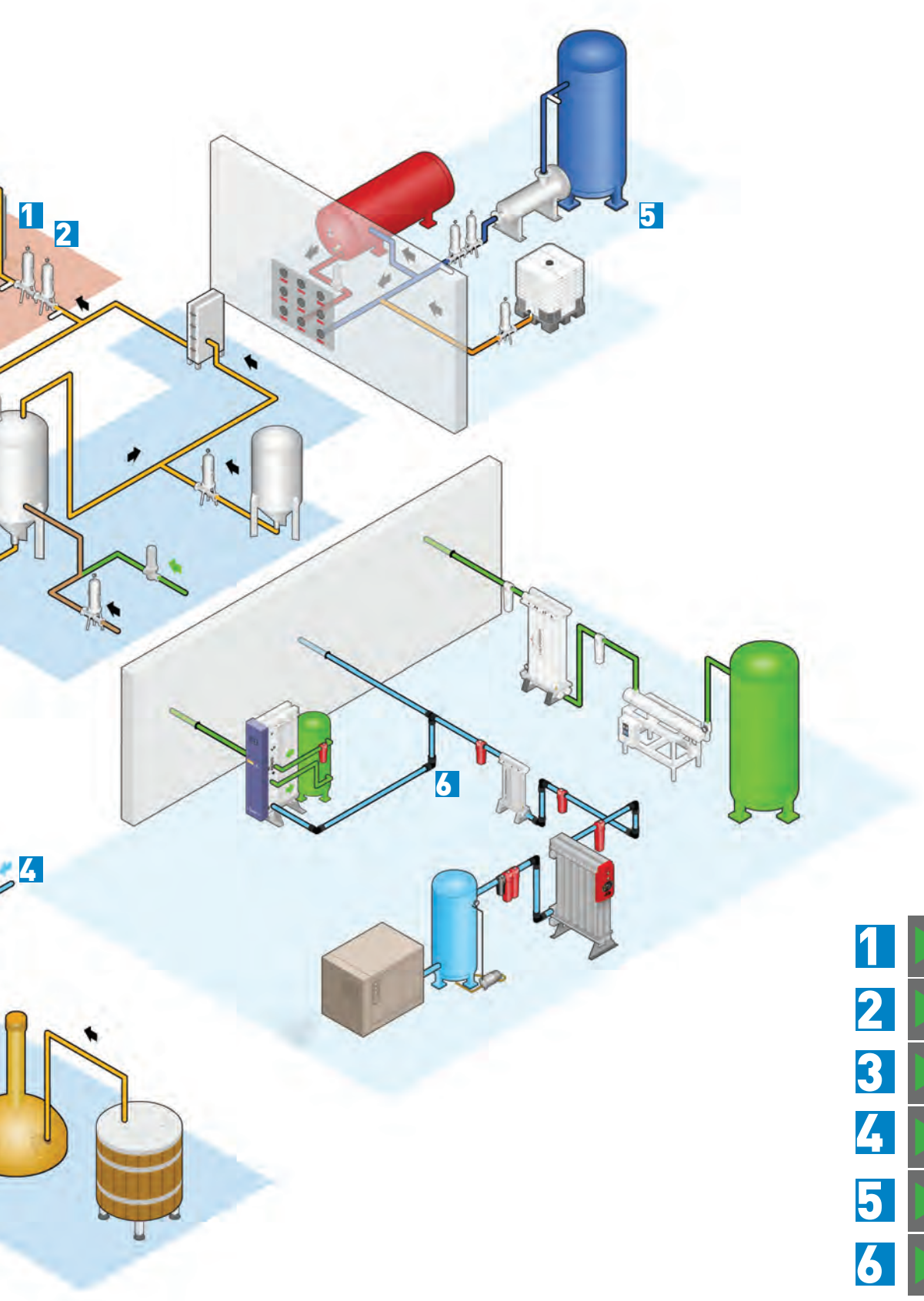
Protecting the quality of your beer at the lowest cost.

Parker domnick hunter specialise in microfiltration solutions for the brewing industry. As a customer of Parker domnick hunter, you have access to leading technologies and specialist support to control specific contamination hazards and protect the quality of your beer at the lowest cost.



www.parker.com/dhbeer

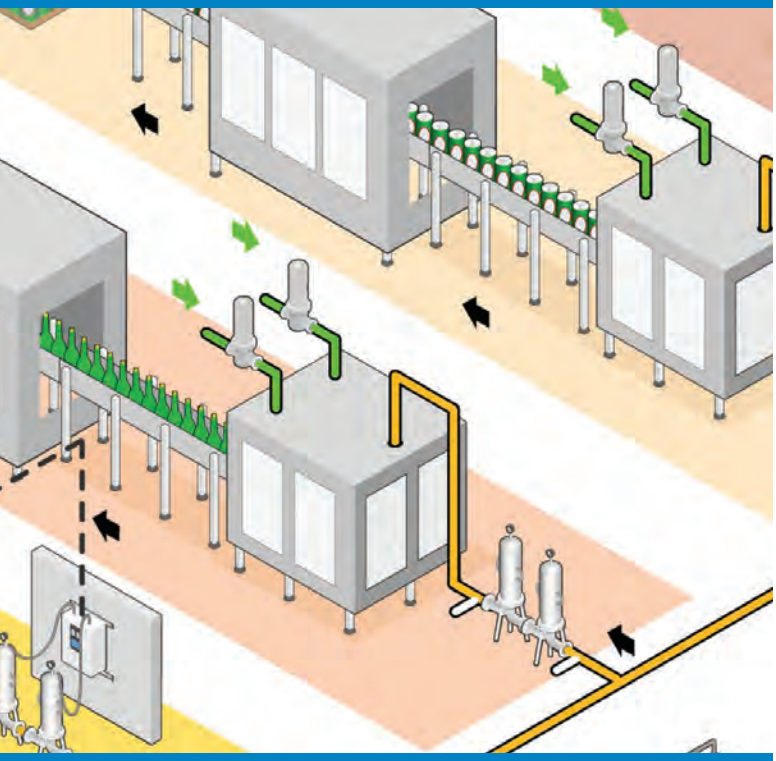
Agidens Process Automation specialise in the design, installation and maintenance of fully flexible, reliable and efficient automated filtration processes, tailored to your needs and expectations. As a customer of Agidens Process Automation, you have access to an extensive engineering team to provide fluent system integration into your plant.



1. Cold stabilisation
2. Pre-stabilisation
3. Trap filtration
4. Sterilisation of gas
5. Water utlities
6. Gas utilities

Cold Stabilisation

Cold stabilisation refers to the microfiltration of beer to remove any spoilage microorganisms before it is packaged.



Cold stabilisation with membrane filtration carries many advantages over classical pasteurisation techniques and is widely recognised as the optimum process to protect beer quality, whilst reducing water consumption, energy usage and beer losses.

www.parker.com/ColdStabilisation

Filter Cartridges



PREPOR NG
BEVPOR BR

The PREPOR NG and BEVPOR BR filter combination from Parker domnick hunter allows brewers to significantly reduce the cost of microbial stabilisation, whilst protecting the sensory appeal of beer.

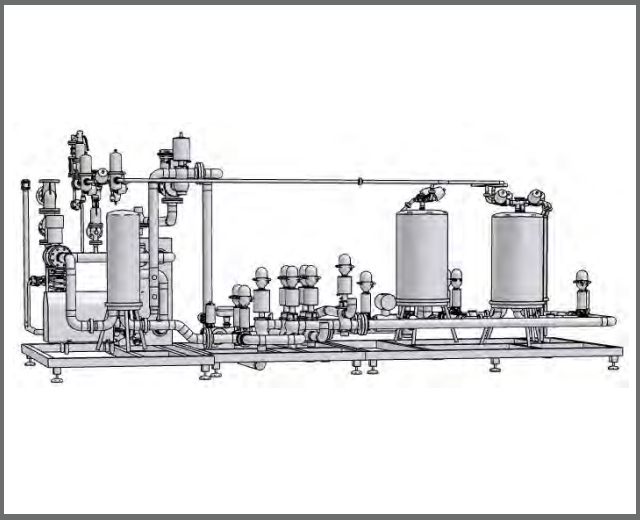
BEVPOR BR filters utilise a unique PES membrane which has been validated to retain key spoilage organisms, whilst offering the longest service life and therefore the most efficient and lowest cost of operation. In addition, the unique construction of the BEVPOR BR filters allows easy integrity testing as the cartridge is entirely hydrophilic and wets out quickly and easily.

- Absolute elimination of beer spoilage organisms.
- Longest service life and lowest cost of operation.
- Guarantee and control of filter performance.
- Certified to European and US food contact requirements.

www.parker.com/BevporBR
www.parker.com/PreporNG

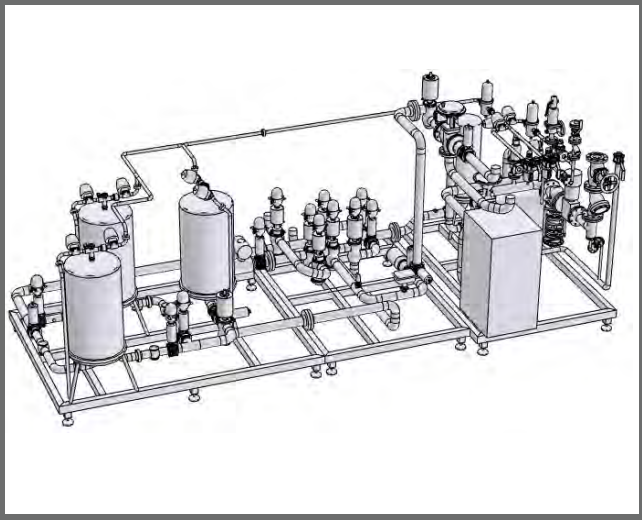
Together with Agidens Process Automation, we can offer a platform of hygienic, fully flexible cold stabilisation modules (CSM) to suit a range of beer flow capacities and specifications.

CSM11



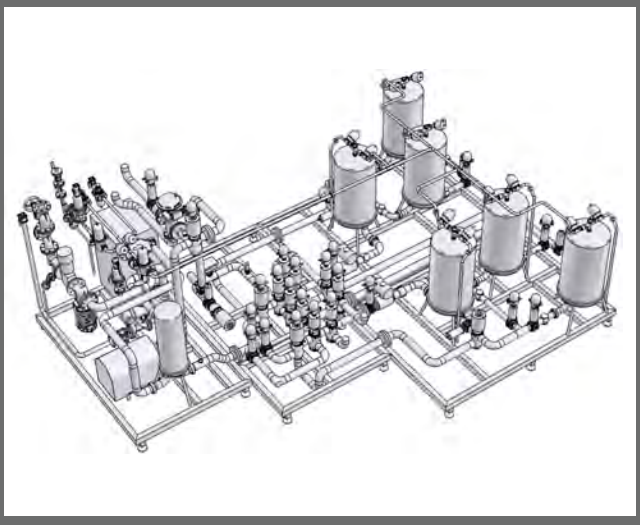
- One prefilter stage, one final filter stage.
- Flow range: 40 – 100hl/hr.
- Batch processing.

CSM12



- One prefilter stage, two final filters (duplex).
- Flow range: 100 – 300hl/hr.
- Batch processing.

CSM24



- Two prefilters (duplex), four final filters (duplex).
- Flow range: 300 – 600hl/hr.
- Continuous processing.

Standard functions for all systems:

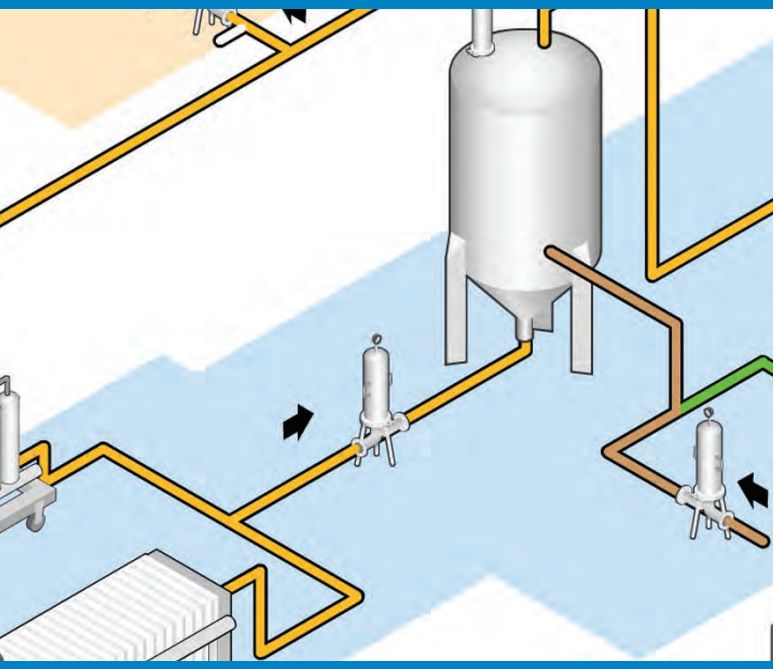
- Automated CIP of each filter stage with two chemicals.
- Automated integrity testing of membrane filters.
- Full process sensing and data management.

Options available for all systems:

- Integrated buffer tank.
- Separate, mobile CIP unit (ACIP concept).
- Integration with customer specific CIP.
- Auto-sampling of beer in/out.
- Beer phase separation in/out.

Trap Filtration

Trap filtration refers to the microfiltration of beer after primary clarification and stabilisation processes in order to remove particulate (DE / kiesselguhr, PVPP) and improve haze prior to packaging.



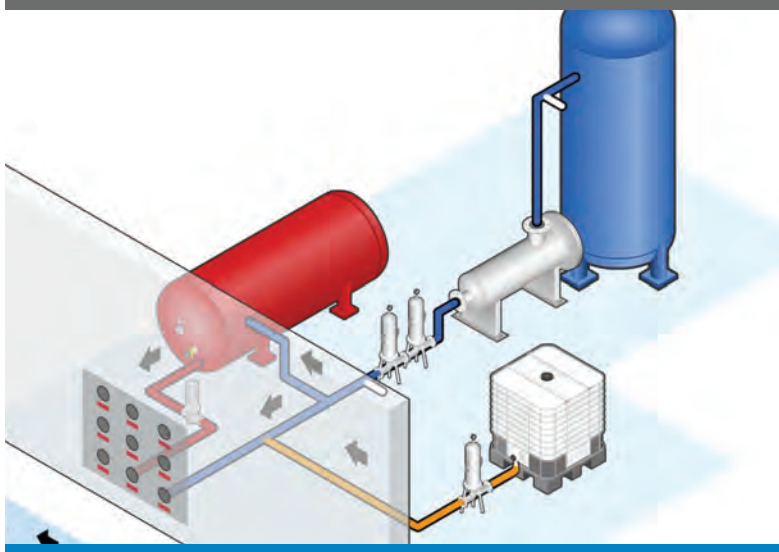
Parker domnick hunter have worked hand in hand with brewers to developed a range of trap filters and processes to control and protect the quality of beer entering the bright beer tank as efficiently as possible.

Automation of this process using duty / standby filter stages allows for continuous beer filtration and filter cartridge regeneration.

- Absolute retention down to sub-micron particulate.
- Full yeast retention and bacterial reduction.
- Reduced change-out with optimised backwash regeneration

www.parker.com/TrapFiltration

Water Filtration



Whether used for process water, brewing or high gravity blending, water quality plays an important role in protecting beer quality. However, water quality from typical sources such as bore holes and town water can vary with respect to particulate, ion content and microbiological contamination. As such, care and attention must be paid to eliminate unwanted contamination from the water source to protect beer character and maximise brewhouse and stabilisation operations.

From point-of-entry bulk clarification down to sterilisation, Parker domnick hunter and Agidens Process Automation offer a range of automated filtration processes to allow brewers to control water quality with maximum efficiency.

- Absolute, particle retention down to sub-micron levels.
- Longest service life and lowest cost of operation.
- Automated integrity testing to provide guarantee and control of filter performance.

www.parker.com/dhWater
www.parker.com/ParmaxR

Parker domnick hunter

Agidens

Parker domnick hunter and Agidens Process Automation offer high performance filtration solutions tailored to your needs and expectations. Regardless of the plant specifics and software systems used in your brewery, we deliver integrated systems that are flexible and fully compliant with the highest standards.

High Performance Filtration

Years of research and development have resulted in the highest performing filtration systems available in the market. Parker domnick hunter filter cartridges offer validated retention of beer spoilage organisms and can be easily integrity tested for complete confidence in filtration performance.

Investment with Return

Not only do we aim to make high performing filtration systems, we aim to make them affordable. We have designed our filtration solutions in such a way that they can be adapted to the expectations of any brewery. Not only do we limit the cost for integration, the long service life of the filters also limits the recurring costs afterwards. Together, we create systems, but deliver a return on your investment.

A to Z Integrated Solution

Providing a fluent integration into your plant while limiting production downtime is crucial in our approach. An extensive engineering team ensures a tailored solution that can be integrated into any kind of existing software or control system. With years of process design and automation experience in breweries all over the world, you can be assured of a fast and high quality integration into your production plant.

Easy to use and Maintain

Our shared history in the world of breweries has allowed us to offer solutions fit to the needs of people that use them every single day. Therefore, we have developed systems that are not only easy to use, but also easy to maintain.

With a wide range of service level agreements for system maintenance and remote sotware access, we can offer complete operation support for your critical filtration processes.

Are you looking for a filtration system without having to worry about a fluent integration of the system into your plant?

Agidens Process Automation and Parker domnick hunter not only deliver high quality products, we deliver high performance solutions tailored to your needs.

To find out more visit:

Solutions.parker.com/ANewPartnership

Excellence in technical support



Parker domnick hunter have a global network of scientists and engineers available to support the filtration operations in your brewery.

As beer is a sensitive product containing a complex mix of natural components, a high degree of attention over the stabilisation systems is required in order to produce beer to correct specification and to achieve the correct shelf-life.

In order to maximise brewhouse operations and produce fresh tasting, stable beer which preserves its character once packaged, care and attention must be paid not only to the filtration systems, but also the support in operations such as cleaning, disinfecting and integrity testing practices.

From system design, commissioning, operator training and on-going maintenance / support, Parker domnick hunter provide a range of technical support services aimed at maximising brewery efficiency. With expert scientists and engineers and access to leading analytical laboratories, Parker domnick hunter are the perfect partner for filtration support.

- Expert filtration guidance and support.
- Rapid response to technical enquiries.
- On-site deployment for technical analysis.
- System design and best practice recommedations.
- System audits and process optimisation.
- Technical training.
- Used product analysis.

Technical Support
email: tsg@parker.com
tel: +44 (0) 191 4105121

Parker domnick hunter specialises in filtration and separation technologies for brewing. Below is a selection of products designed to protect the quality of your beer at the lowest cost.

Cold stabilisation

BEVPOR BR

Polyethersulphone — 0.45 micron

- Validated microbial retention for effective stabilisation
- Optimised PES membrane structure
- High filtration area - 0.8m² per 10"
- Integral prefilter layer



BEVPOR PH

Polyethersulphone — 0.45, 0.65 micron

- Validated microbial retention for effective stabilisation
- High filtration area - 0.8m² per 10"
- Integral prefilter layer



BEVPOR PS

Polyethersulphone — 0.45, 0.65 micron

- Validated microbial retention for effective stabilisation
- 0.6m² filtration area per 10"



Pre-stabilisation, membrane protection and BBT protection

PREPOR PP

Polypropylene — 0.6 - 1.0 micron

- Yeast and bacterial reduction
- Haze reduction
- Strong, pleated polypropylene construction for backwash and chemical CIP



PREPOR NG

Polypropylene — 0.5 - 1.0 micron

- Validated yeast removal and bacterial reduction
- Haze reduction
- Graded density construction for increased retention and throughput
- Strong, pleated polypropylene construction for backwash and chemical CIP



Trap filtration

PEPLYN HA

Polypropylene — 1.0 - 20 micron

- Specifically designed for back wash regeneration



Water treatment

PARMAX-R

Polypropylene — 1.0 - 40 microns

- Large diameter filtration for high flow rates and high capacity
- Absolute retention ratings for critical filtration



PROPLEAT PP

Polypropylene — 1.0 - 10 microns

- Economical solution for particle removal
- Strong, robust construction
- Can be cleaned and sterilised in-situ



BEVPOR MS

Polyethersulphone — 0.2 micron

- Validated microbial removal against waterborne bacteria
- Integrity testable



Air / gas filtration

HIGH FLOW BIO-X

PTFE Impregnated glass fibre - 0.01 micron sterilising

- Fully retentive to aerosol bacteria
- 94% voids volume PTFE impregnated glass fibre
- Exceptional flow rates with low pressure drops
- Integrity testable by aerosol challenge



HIGH FLOW TETPOR II

Polypropylene expanded PTFE — 0.01 - 0.2 micron

- Assured biosecurity with absolute rated filtration
- High flow rates with low pressure drops
- High voids volume PTFE membrane
- Fully integrity testable



OIL-X

High efficiency compressed air filters

- The most energy efficient filters available
- High quality ISO8573.1:2001 compressed air
- Running costs that start low and stay low



PC02

Carbon dioxide purifier

- Ensures compliance with quality guidelines published by the International Society for Beverage Technologies (ISBT)
- Protects drinks manufacturing processes from vapour impurities
- Easy maintenance



NITROSOURCE

Nitrogen gas generator

- Energy saving technology
- Lower cost maintenance and extensive working life
- Unique gas quality control system
- Remote monitoring



Housings

VSH

Beverage filter housing

- Multi-element sanitary liquid housing
- Designed specifically for the food and beverage industry
- High quality crevice free construction
- Available for 3 to 30 round filters



HBA

Beverage filter housing

- Flow efficient range of air / gas housing
- Designed to maximize flow and minimize pressure drop
- Designed specifically for the food and beverage industry



HSL

Beverage filter housing

- Single-element sanitary liquid housing
- Designed specifically for the food and beverage industry
- Sanitary vent, tri-clamp connections as standard
- Sanitary tri-clamp body closure as standard



Integrity test equipment

Valairdata 3

Gas filter test

- Aerosol challenge testing
- Integrity testing of gas filters



BEVCHECK

Liquid filter test

- Pressure decay and diffusional flow testing
- Hand held portability with rechargeable battery option
- Flexible: suitable for use with compressed air or nitrogen



BEVCHECK PLUS

Liquid filter test

- Pressure decay and diffusional flow testing
- Convenient built-in printer provides printed test report
- Flexible: suitable for use with compressed air or nitrogen



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