



Bottled Water Industry

A guide to Products and Services

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Improving quality and control

Supported by innovative products, state-of-the-art technical facilities and a specialized international team, Parker domnick hunter's capability is based on understanding the specific needs of your business and providing a total solution.

Delivering value from source to bottle

The Purecare programme represents a joint approach to bottled water processing to review and manage your entire process. The Purecare package incorporates up-front consultation and assessment to establish your overall goals as well as a range of after-sales packages that ensure the Parker domnick hunter solution is working at maximum efficiency. Purecare takes into account all aspects that affect your process, making small changes that can lead to big results.

Purity that goes beyond filtration

Developing solutions that support quality in every aspect of your process makes us a truly unique supplier who can deliver complete protection of your liquid and gas applications enabling you to have confidence and assurance in the quality of your final product.

Global support

Part of the \$10 billion Parker Hannifin corporation, we have subsidiaries in 25 countries worldwide with nine manufacturing locations, so we can offer you truly global support with a local perspective and expertise.

Committed to process improvements

Our goal is to continually improve your productivity, reduce your process costs and ensure the safety of your final product. Parker domnick hunter commits to your goals through Purecare, providing total confidence by way of up-front consultation and after-sales support packages:

- Continued investment in research and technology
- Application driven approach to new products
- Market and geographical experience leading to tailored solutions
- Global network providing technical, service and sales support
- Excellent reputation gained through working with the world's leading bottled water producers
- Highly skilled, experienced and trained employees



WHAT'S IN YOUR BOTTLE ?

Natural Mineral Water

Spring Water

Bottled Water

Natural mineral waters must be bottled at source, via a direct pipeline from source to bottle. Water must be microbiologically safe at source without disinfection and have a stable mineral content.

Bottled at source and microbiologically safe at source. Does not require a stable mineral content.

Bottled water or "table water" must comply with local drinking water standards and can be treated, disinfected, or de-chlorinated. Removal and remineralization is permitted to create a desired mineral balance and taste. Carbon dioxide may be added to create a sparkling water.

Clarification ●

- PEPLYN range of liquid filters
- Polypropylene media
- Effective particulate removal
- Available in large format diameters

Sterile Gas & Vent Filtration ●

- TETPOR & BIO-X ranges of filters
- PTFE or borosilicate microfibre media
- Assured biosecurity

Pre-Stabilization ●

- PREPOR range of prefilters
- Polypropylene
- Bioburden reduction & clarification
- Extend life of membrane filters

Final Stabilization ●

- BEVPOR range of final filters
- PES membrane
- Microbiological control

Steam ●

- Steam to meet culinary standards
- Protects equipment & downstream filters

Carbon ●

- Extruded activated carbon filter
- Chlorine & odour removal

CO₂ Polishing

The PCO₂ system is designed as a quality incident protection unit acting as a point-of-use vapour 'polisher' and is proven to be effective at removing a wide range of potential CO₂ impurities, such as benzene, acetaldehyde and hydrogen sulphide.

Under HACCP principles, the quality of CO₂ used at the point of carbonation is defined as a Critical Control Point (CCP) and the installation of PCO₂ system at this point will form part of a complete CO₂ quality approach.

Compressed Air Purification

Direct and indirect contact between compressed air and water may lead to oxidization or contamination. BRC / BCAS code of practice for food / beverage grade compressed air protects bottled water producers. Parker domnick hunter, as market leaders, provide a complete solution that will remove a potential of 10 contaminants from up to 4 different sources.

- Water separators
- Coalescing filters
- Adsorption filters
- Refrigeration dryers
- Dust removal filters

Nitrogen Generation

- Generate your own nitrogen
- Consistent flow, pressure and purity
- Cost saving of up to 90%
- Improves safety & efficiency
- Applications include:
 - Pressure transfer
 - Blanketing
 - Purging
 - Sparging
 - Filling

Filter Integrity Testing

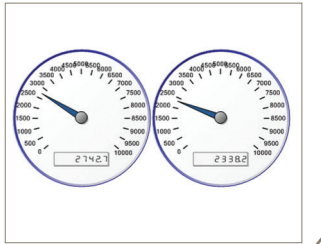
Integrity testing of sterile grade filters is a fundamental requirement of critical process applications ensuring the biological safety, quality and shelf-life of the product that reaches the customer. Parker domnick hunter provides a range of instruments suitable for bottled water applications providing a test protocol that fits well into a HACCP framework.

- Valairdata 3- Aerosol challenge of sterile air filters
- BEVCHECK PLUS - Pressure decay testing of membrane filters

Remote Monitoring

Web based systems allowing real time monitoring of filter performance.

- Monitor system parameters
- Highlights problems and unexpected changes
- Both customer and Parker domnick hunter support team monitor performance



Silt Density Index (SDI) Testing

An evaluation of suspended particles and colloids in the water, based on the rate of blockage of a test membrane. Samples are taken over a given period of time to provide an indication of the performance of various treatment stages and the effect on water quality due to seasonal variation.

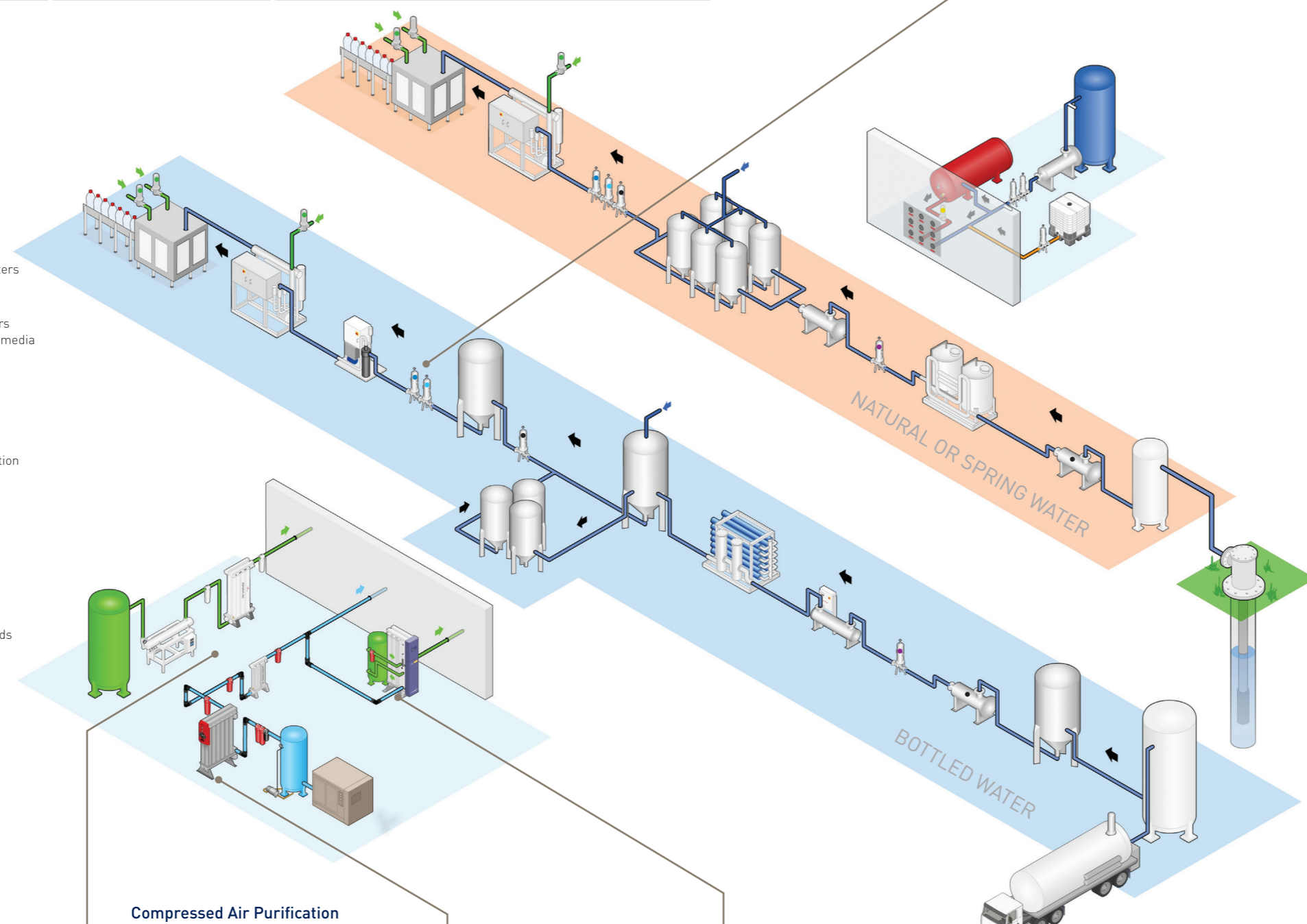
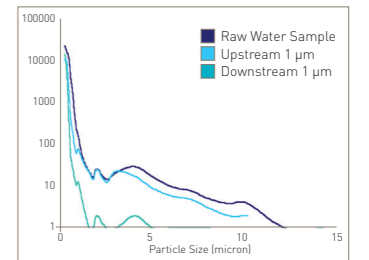
- Disc trial carried out over 15 minutes
- Multiple samples taken
- Periodic testing to monitor seasonal trends



Particle Size Analysis (PSA) Testing

PSA is a measurement of particle size distribution in water samples using a laser particle counter either on-site or in a laboratory environment. PSA can give an indication of the expected workload of a filter system.

- Helps identify the need for more effective prefiltration protecting downstream membranes
- Can help to identify seasonal variation in source water quality.



Products



BEVPOR

Final Stabilization

The BEVPOR PES range of filters from Parker domnick hunter ensures the microbial safety of bottled water whilst protecting the purity and essential characteristics of the source.

- 0.2 - 0.45 microns
- Sterilizing and stabilization grades
- PES membrane filters
- Repeatedly integrity testable



PREPOR

Pre-Stabilization

A superior level of microbial retention combined with efficient colloidal reduction protects the service life of BEVPOR membrane final filters.

- 0.5 to 1.0 microns
- Validated reduction of regulated organisms
- Graded density construction for increased retention and throughput



PEPLYN

Clarification & Prefiltration

The PEPLYN range of filters from Parker domnick hunter utilizes a graded density polypropylene depth media providing high dirt holding capacity with high flow rates.

- 0.6 to 100 microns
- Large diameter format PEPLYNMAX and MAXGUARD
- Excellent particulate retention



CARBOFLOW

Carbon Filters

Activated carbon filters are offered in both high efficiency and general grades. Utilizing FDA approved materials they are ideal for chlorine reduction.

- Available in 2 grades
- 5" to 40" lengths
- Excellent adsorptive capacity



STEAM

Culinary Grade

Sintered and pleated steam filters from Parker domnick hunter are designed to provide culinary grade steam. This protects pipework, equipment and downstream filters.

- The 1 micron version guarantees steam to 3A Standard 609-03
- 1 to 25 microns
- Re-cleanable 316L stainless steel
- Exceptionally high flow rates
- Jumbo version for increased capacity



HIGH FLOW TETPOR II

Air / Gas Filters

HIGH FLOW TETPOR II gas sterilization filters have been developed to benefit from technological advances within the manufacture of PTFE membranes. This new generation of filter sets the standard with an unrivalled combination of efficiency, flow rate and strength.

- Optimum pleat
- Unrivalled flow rates combined with low pressure drops
- High flow rates with low pressure drops
- Steam sterilizable to 255 cycles at 142 °C (287.6 °F)



HIGH FLOW BIO-X

Air / Gas Filters

HIGH FLOW BIO-X combines proven depth filter technology and a pleated construction to provide retention down to 0.01 micron in gas. Flow rates typically 2-3 times that of membrane filters make HIGH FLOW BIO-X the filter that can dramatically reduce cartridge usage and installation size within the fermentation, food and beverage industries.

- High temperature operation 200 °C (329 °F)
- Stainless steel inner core
- Wide bore cartridge construction to maximize flow rate



HOUSINGS

Liquid & Gas

Parker domnick hunter have a range of single and multi-round cartridge housings, designed specifically for use in food and beverage applications. Housings are available in both standard and plus versions to suit individual application requirements.

- Multi-element liquid housings 3 to 30 round
- Industrial vent housings
- Flow efficient sanitary air housings



INTEGRITY TEST EQUIPMENT

Liquid & Gas

Parker domnick hunter have a range of instruments that have been specifically designed for your industry. All instrumentation is supported by our global team of service engineers and support technicians.

- Valairdata 3 Aerosol challenge testing of sterile gas filters
- BEVCHECK Hand held unit testing pressure decay of membrane filters
- BEVCHECK PLUS Built-in printer provides printed test report



MIDIGAS & MAXIGAS

Nitrogen gas generators

Nitrogen gas generators produce on-site nitrogen gas from compressed air and are the cost-effective alternatives to traditional nitrogen sources for multiple applications. Excellent energy efficiency and a low life-cycle ownership cost facilitate considerable cost savings of up to 90%.

- Low life-cycle ownership cost and elimination of costs associated with a cylinder supply
- On-demand functionality limits waste
- Energy efficient; operates from a small compressor



WS WATER SEPARATORS

Bulk Liquid Removal

Providing efficient bulk liquid removal at all flow conditions, OIL-X EVOLUTION WS Water Separators also minimize energy consumption and help reduce your carbon footprint.

- Tested in accordance with ISO8573.9
- Performance independently verified
- Low pressure loss / low operational cost



OIL-X EVOLUTION

Compressed Air Filters

Providing air quality that meets or exceeds the requirements of ISO8573-1, the international standard for compressed air quality, OIL-X EVOLUTION is also the most energy efficient compressed air filter in the world, helping to reduce your carbon footprint.

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



PNEUDRI

Desiccant Dryers

Providing water vapour removal in accordance with Classes 1, 2 & 3 of ISO8573-1 the international standard for compressed air quality, PNEUDRI modular compressed air dryers offer unrivalled performance, flexibility and expandability in a unique space saving design. Low operational costs and integrated energy management systems also ensure energy consumption is kept to a minimum.

- Highest quality air
- Totally stops corrosion / damage
- Low installation costs
- Energy efficient

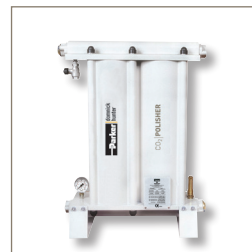


HYPERCHILL

Precision Chilled Water

Hyperchill maximizes productivity and minimizes costs, as well as easy conformity to regulations on water quality. Hyperchill is the perfect solution to industrial chilled water needs.

- Increases productivity, reduces costs
- Adaptable to individual customer needs



PCO2

Carbon Dioxide Polishing Systems

Providing quality incident protection for beverage grade carbon dioxide, PCO2 offers protection against carbon dioxide contamination and impurities of up to 10 times the allowable levels.

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

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai
Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt
Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt
Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku
Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles
Tel: +32 (0)67 280 900
parker.belgium@parker.com

BY – Belarus, Minsk
Tel: +375 17 209 9399
parker.belarus@parker.com

CH – Switzerland, Etoy
Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany
Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst
Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup
Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid
Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa
Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve
Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Athens
Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budapest
Tel: +36 1 220 4155
parker.hungary@parker.com

IE – Ireland, Dublin
Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IT – Italy, Corsico (MI)
Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty
Tel: +7 7272 505 800
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal
Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker
Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw
Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal, Leca da Palmeira
Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest
Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow
Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga
Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica
Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto
Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul
Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev
Tel: +380 44 494 2731
parker.ukraine@parker.com

UK – United Kingdom, Warwick
Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park
Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario
Tel: +1 905 693 3000

US – USA, Cleveland
Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill
Tel: +61 (0)2-9634 7777

CN – China, Shanghai
Tel: +86 21 2899 5000

HK – Hong Kong
Tel: +852 2428 8008

IN – India, Mumbai
Tel: +91 22 6513 7081-85

JP – Japan, Tokyo
Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul
Tel: +82 2 559 0400

MY – Malaysia, Shah Alam
Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington
Tel: +64 9 574 1744

SG – Singapore
Tel: +65 6887 6300

TH – Thailand, Bangkok
Tel: +662 717 8140

TW – Taiwan, Taipei
Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires
Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos
Tel: +55 12 4009 3500

CL – Chile, Santiago
Tel: +56 2 623 1216

MX – Mexico, Apodaca
Tel: +52 81 8156 6000

VE – Venezuela, Caracas
Tel: +58 212 238 5422

Ed. 2010-09-29

© 2014 Parker Hannifin Corporation. All rights reserved.

GL_BW_04_07/14 Rev. 1D