Parker domnick hunter commitments

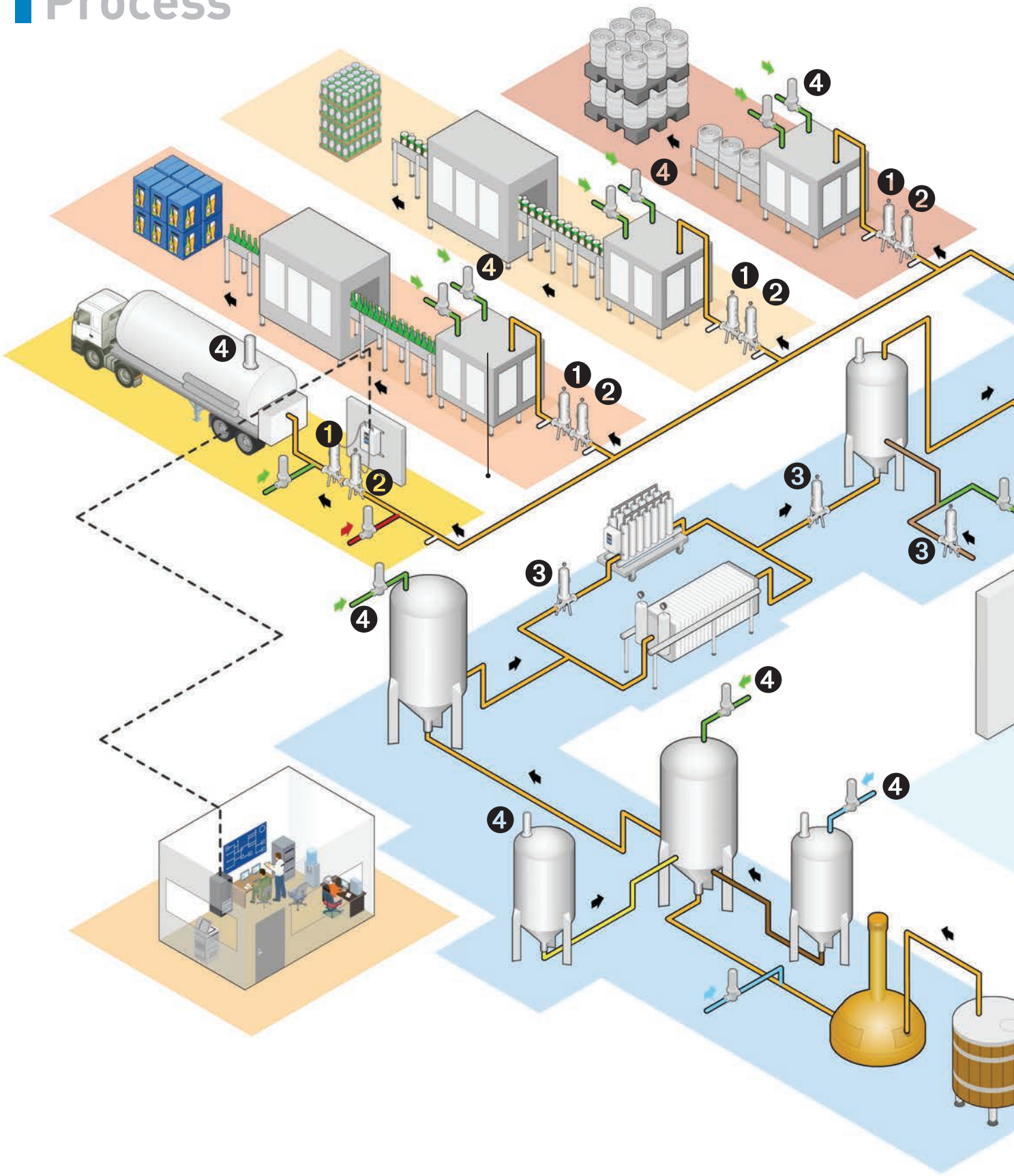
Brewing
collection

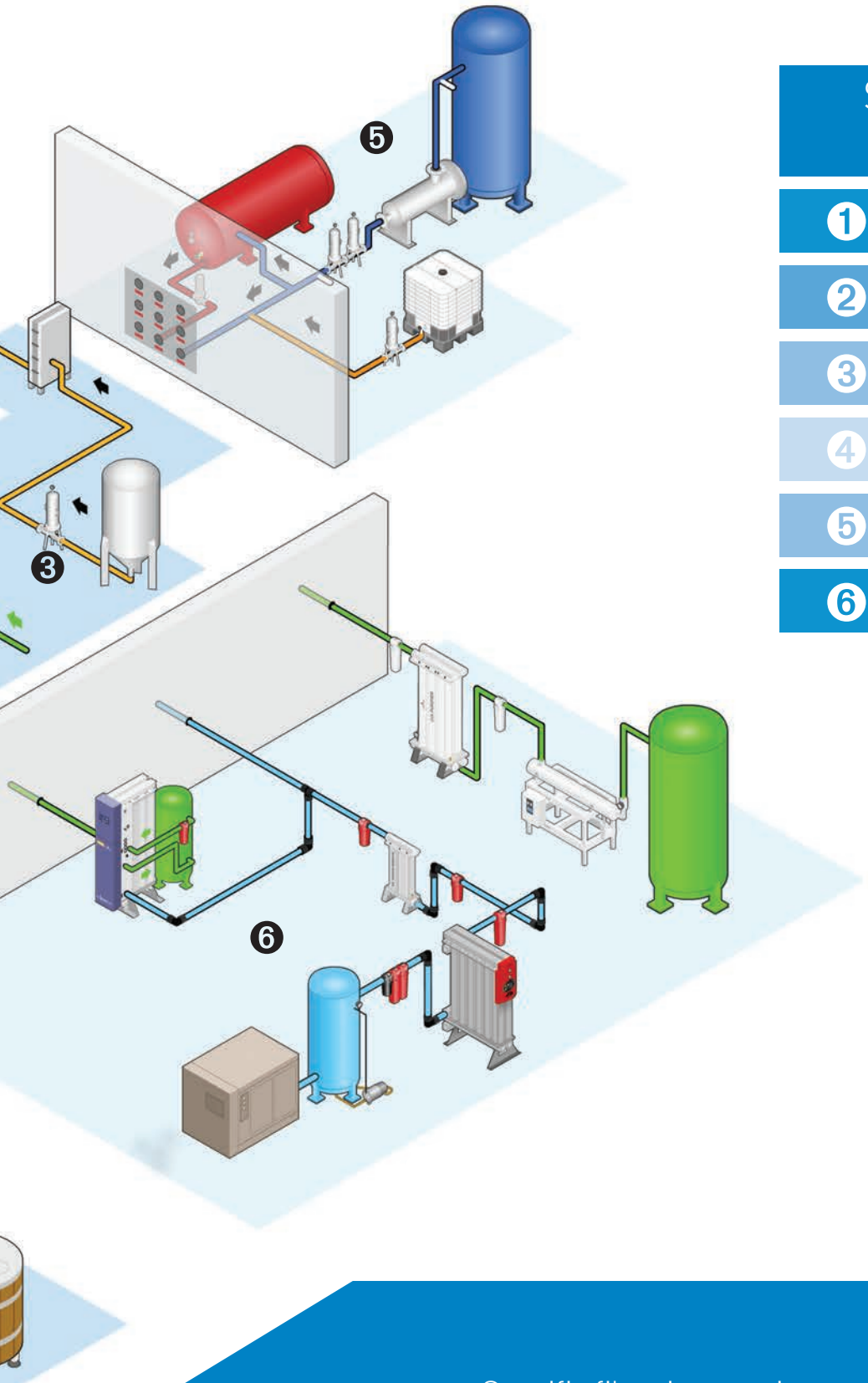
Large multinational corporations, regional brewers and micro-brewers alike have partnered with Parker domnick hunter to successfully reach their quality and production requirements.

At the heart of the brewing process lies a totally natural sequence of events – the anaerobic fermentation of malted barley by yeast. In order to consistently produce the perfect brew, the fermentation, stabilization and packaging stages need to be closely controlled. Each stage of the process typically requires dedicated technology and equipment and there is a huge range of choice and flexibility in approaches.

Parker domnick hunter provide tailored filtration solutions which meet specific performance criteria. Through a structured program of technical analysis available from a network of international support hubs, we work with end users to achieve their goals. By combining specialist brewing knowledge with a dedicated product range, we deliver the Parker domnick hunter commitments of; protecting beer quality, reducing processing costs and providing specialist support.

Typical Process





Specialized Brewing Applications

1. Cold Stabilization
2. Pre-stabilization
3. Trap Filtration
4. Sterilization of Gases
5. Water Utilities
6. Gas Utilities

Specific filtration requirements within the brewery dictate different design criteria for the filter systems. Parker domnick hunter have a range of specialized filtration systems designed to add value at each stage of beer production, stabilization and packaging operations.

BEVPOR PS Brewing

Filter Cartridges

BEVPOR PS beer filters protect the unique characteristics of beer by removing yeast and other spoilage organisms to ensure microbial stability during cold stabilization.

The inert and highly asymmetric PES membrane provides validated microbial retention to typical spoilage organisms, whilst protecting the beer's organoleptic qualities to preserve a fresh taste and a long shelf-life once packaged. Combined with hydrophilic properties for easy integrity testing, BEVPOR PS filters provide assured performance throughout their service life.

BEVPOR PS filters have been designed to provide a cost effective solution to beer stabilization by providing increased process control with increased operational efficiency.

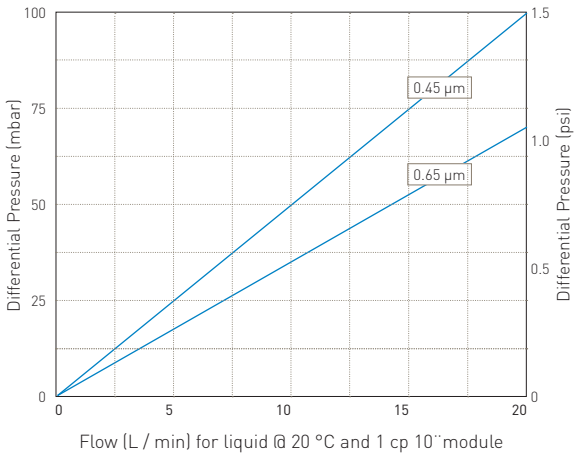
Features

- Validated retention to spoilage organisms
- Inert material of construction
- Easily integrity tested in-situ

Benefits

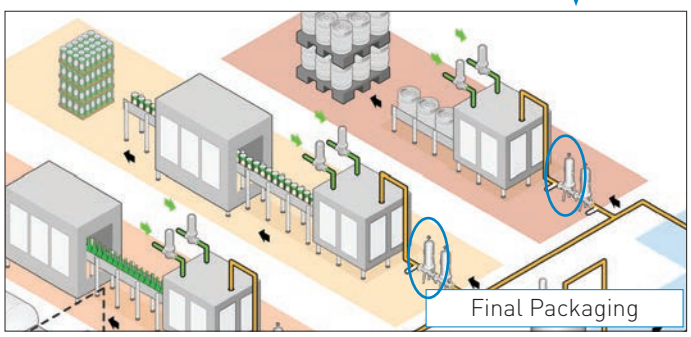
- Ensures effective microbial stabilization of beer
- Preserves the organoleptic qualities of the beer
- Assured filtration performance

Performance Characteristics



Filtration Stage

Clarification | Pre-stabilization | Final Stabilization



Specifications

Materials of Construction

Filtration Membrane:	Polyethersulphone
Upstream Support:	Polyester
Downstream Support:	Polyester
Inner Support Core:	Polypropylene
Outer Protection Cage:	Polypropylene
End Caps:	Nylon
End Cap Insert:	316L Stainless Steel
O-rings:	Silicone / EPDM

Food Contact Compliance

Materials conform to the relevant requirements of FDA 21 CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C.

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature		Max Forward dP	
°C	°F	(bar)	(psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Effective Filtration Area (EFA)

10" (250 mm) Up to 0.6 m^2 (6.45 ft^2)

Cleaning and Sterilization

BEVPOR PS cartridges can be repeatedly steam sterilized in-situ or autoclaved at up to 130 °C (266 °F). They can be sanitized with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals. Please refer to our Clean-in-Place support guide or contact your local Parker representative for more information.

Retention Characteristics

The retention characteristics of BEVPOR PS filters have been validated by challenges performed with the following organisms.

Organism	LRV when challenged with a minimum of 10^7 cfu per cm^2	
	0.45	0.65
Saccharomyces cerevisiae	FR	FR
Brettanomyces bruxellensis	FR	FR
Lactobacillus brevis	FR	FR
Acetobacter oeni	FR	FR
Pseudomonas aeruginosa	9.1	8.9
Serratia marcescens	FR	FR

*FR - Fully retentive during challenge

When expressed as titre reduction "FR" equates to >10" per 10" module.

Integrity Test Data

All filters are flushed with pharmaceutical grade purified water prior to despatch. They are integrity tested to the following limits:

Diffusional Flow Test Parameters	Micron Rating 0.45	0.65
Test Pressure (barg)	1.4	1.0
Test Pressure (psig)	20.0	15.0
Max Diffusional Flow per 10" (ml /min)	16.0	16.0

Manufacturing Traceability

Each filter cartridge displays the product name, product code and lot number. Additionally, each module displays a unique serial number providing full manufacturing traceability.

Ordering information

BPS - [ ] [ ] - [ ] A [ ]

Code	Length (Nominal)	
1	10"	(250 mm)
2	20"	(500 mm)
3	30"	(750 mm)
4	40"	(1000 mm)

Code	Micron	
04	0.45	µm
06	0.65	µm

Code	End Cap (10 inch)
C	Fin / 226 Bayonet
D	Fin / 222
E	Flat Top / 222
G	Recess / 222
R	BF / 222 Bayonet

Code	O-rings
S	Silicone
E	EPDM

VSH & HSL
HOUSING RANGE AVAILABLE

BEVPOR PW Brewing

Filter Cartridges

BEVPOR PW beer filters protect the unique characteristics of beer by removing yeast and other spoilage organisms to ensure microbial stability during cold stabilization.

The inert and highly asymmetric PES membrane provides validated microbial retention to typical spoilage organisms, whilst protecting the beer's organoleptic qualities to preserve a fresh taste and a long shelf-life once packaged.

The incorporation of an active prefilter layer allows graded retention throughout the depth of the filter to resist blockage, resulting in an increased capacity and long service lifetimes.

BEVPOR PW filters have been designed to provide a cost-effective solution to beer stabilization by providing increased process control with increased operational efficiency.

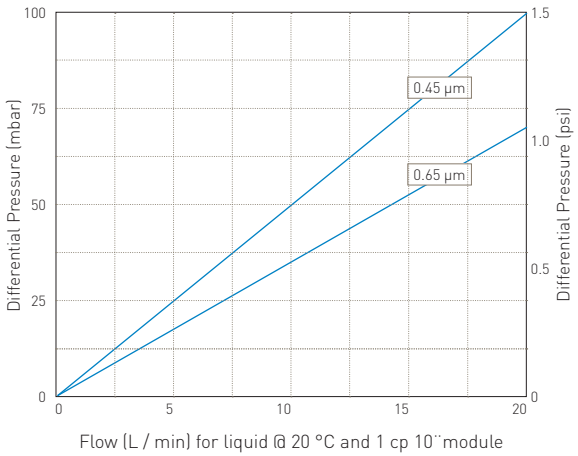
Features

- Validated retention to spoilage organisms
- Inert material of construction
- Easily integrity tested in-situ
- Integral depth prefiltration layer

Benefits

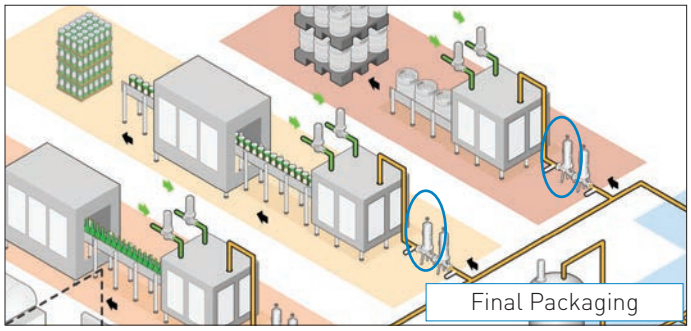
- Ensures effective microbial stabilization of beer
- Preserves the organoleptic qualities of the beer
- Assured filtration performance
- Increased throughput to blockage

Performance Characteristics



Filtration Stage

Clarification | Pre-stabilization | Final Stabilization



Specifications

Materials of Construction

Filtration Membrane:	Polyethersulphone
Prefilter Layer:	Polyester
Upstream Support:	Polyester
Downstream Support:	Polyester
Inner Support Core:	Polypropylene
Outer Protection Cage:	Polypropylene
End Caps:	Nylon
End Cap Insert:	316L Stainless Steel
O-rings:	Silicone / EPDM

Food Contact Compliance

Materials conform to the relevant requirements of FDA 21 CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C.

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature		Max Forward dP	
°C	°F	(bar)	(psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Effective Filtration Area (EFA)

10˝ (250 mm) Up to 0.6 m^2 (6.45 ft^2)

Cleaning and Sterilization

BEVPOR PW cartridges can be repeatedly steam sterilized in-situ or autoclaved at up to 130 °C (266 °F). They can be sanitized with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals. Please refer to our Clean-in-Place support guide or contact your local Parker representative for more information.

Retention Characteristics

The retention characteristics of BEVPOR PW filters have been validated by challenges performed with the following organisms.

Organism	LRV when challenged with a minimum of 10^7 cfu per cm^2	
	0.45	0.65
Saccharomyces cerevisiae	FR	FR
Brettanomyces bruxellensis	FR	FR
Lactobacillus brevis	FR	FR
Acetobacter oeni	FR	FR
Pseudomonas aeruginosa	9.1	8.9
Serratia marcescens	FR	FR

**FR - Fully retentive during challenge*

When expressed as titre reduction "FR" equates to >10⁷ per 10˝ module.

Integrity Test Data

All filters are flushed with pharmaceutical grade purified water prior to despatch. They are integrity tested to the following limits:

Diffusional Flow Test Parameters	Micron Rating 0.45	0.65
Test Pressure (barg)	1.4	1.0
Test Pressure (psig)	20.0	15.0
Max Diffusional Flow per 10˝ (ml /min)	16.0	16.0

Manufacturing Traceability

Each filter cartridge displays the product name, product code and lot number. Additionally, each module displays a unique serial number providing full manufacturing traceability.

Ordering information

BPW - [ ] [ ] - [ ] A [ ]

Code	Length (Nominal)	
1	10˝	(250 mm)
2	20˝	(500 mm)
3	30˝	(750 mm)
4	40˝	(1000 mm)

Code	Micron
04	0.45 µm
06	0.65 µm

Code	End Cap (10 inch)
C	Fin / 226 Bayonet
D	Fin / 222
E	Flat Top / 222
G	Recess / 222
R	BF / 222 Bayonet

Code	O-rings
S	Silicone
E	EPDM

VSH & HSL
HOUSING RANGE
AVAILABLE

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BEVPOR PH Brewing

Filter Cartridges

BEVPOR PH beer filters protect the unique characteristics of beer by removing yeast and other spoilage organisms to ensure microbial stability during cold stabilization.

The inert and highly asymmetric PES membrane provides validated microbial retention to typical spoilage organisms, whilst protecting the beer's organoleptic qualities to preserve a fresh taste and a long shelf-life once packaged.

The incorporation of an active prefilter layer, combined with an increased filtration area provides high beer flow rates, greater resistance to blockage and maximized service lifetime.

BEVPOR PH filters have been designed to provide the optimum solution to beer stabilization by providing increased process control with maximized operational efficiency.

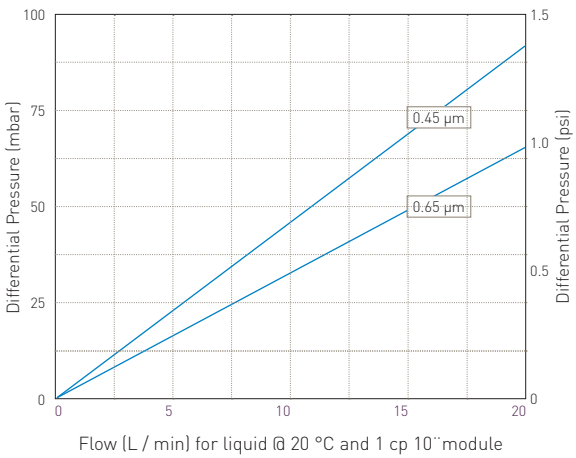
Features

- Validated retention to spoilage organisms
- Inert materials of construction
- Easily integrity tested in-situ
- Integral depth prefiltration layer
- High filtration area

Benefits

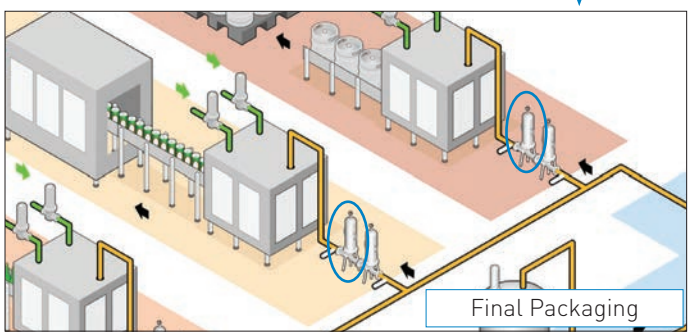
- Ensures effective microbial stabilization of beer
- Preserves the organoleptic qualities of the beer
- Assured filtration performance
- Increased throughput to blockage
- Maximized operational efficiency

Performance Characteristics



Filtration Stage

Clarification | Pre-stabilization | Final Stabilization



Specifications

Materials of Construction

Filtration Membrane:	Polyethersulphone
Prefilter Layer:	Polyester
Upstream Support:	Polyester
Downstream Support:	Polyester
Inner Support Core:	Polypropylene
Outer Protection Cage:	Polypropylene
End Caps:	Nylon
End Cap Insert:	316L Stainless Steel
O-rings:	Silicone / EPDM

Food Contact Compliance

Materials conform to the relevant requirements of FDA 21 CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C.

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature °C	Temperature °F	Max Forward dP (bar)	Max Forward dP (psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Effective Filtration Area (EFA)

10˝ (250 mm) Up to 0.8 m^2 (8.61 ft^2)

Cleaning and Sterilization

BEVPOR PH cartridges can be repeatedly steam sterilized in-situ or autoclaved at up to 130 °C (266 °F). They can be sanitized with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals. Please refer to our Clean-in-Place support guide or contact your local Parker representative for more information.

Retention Characteristics

The retention characteristics of BEVPOR PH filters have been validated by challenges performed with the following organisms.

Organism	LRV when challenged with a minimum of 10^7 cfu per cm^2 0.45	0.65
Saccharomyces cerevisiae	FR	FR
Brettanomyces bruxellensis	FR	FR
Lactobacillus brevis	FR	FR
Acetobacter oeni	FR	FR
Pseudomonas aeruginosa	9.1	8.9
Serratia marcescens	FR	FR

**FR - Fully retentive during challenge*

When expressed as titre reduction "FR" equates to >10^7 per 10˝ module.

Integrity Test Data

All filters are flushed with pharmaceutical grade purified water prior to despatch. They are integrity tested to the following limits:

Diffusional Flow Test Parameters	Micron Rating 0.45	0.65
Test Pressure (barg)	1.4	1.0
Test Pressure (psig)	20.0	15.0
Max Diffusional Flow per 10˝ (ml /min)	21.0	21.0

Manufacturing Traceability

Each filter cartridge displays the product name, product code and lot number. Additionally, each module displays a unique serial number providing full manufacturing traceability.

Ordering information

BPH - [ ] [ ] - [ ] A [ ]

Code	Length (Nominal)
1	10˝ (250 mm)
2	20˝ (500 mm)
3	30˝ (750 mm)
4	40˝ (1000 mm)

Code	Micron
04	0.45 µm
06	0.65 µm

Code	End Cap (10 inch)
C	Fin / 226 Bayonet
D	Fin / 222
E	Flat Top / 222
R	BF / 222 Bayonet

Code	O-rings
S*	Silicone
E	EPDM

*Silicone O-rings supplied as standard

VSH & HSL
HOUSING RANGE AVAILABLE

PREPOR NG Brewing

Filter Cartridges

Parker domnick hunter's continued focus on process optimization and control has led to the development of a new range of prefilters to benefit the latter stages of beer stabilization processes.

Following upstream clarification stages there is a need to control the microbial loading of the bright beer before intermediate storage.

The new range of PREPOR NG filters has been specifically developed to remove yeast and particulate such as filter aids and haze components. The superior level of retention ensures that a consistent quality of brew is delivered to bright beer storage whilst also offering a greater level of membrane filter protection during cold stabilization.

The robust componentry is specifically designed to withstand caustic and backwash regeneration, making the filter stage a reliable and cost-effective solution to beer stabilization.

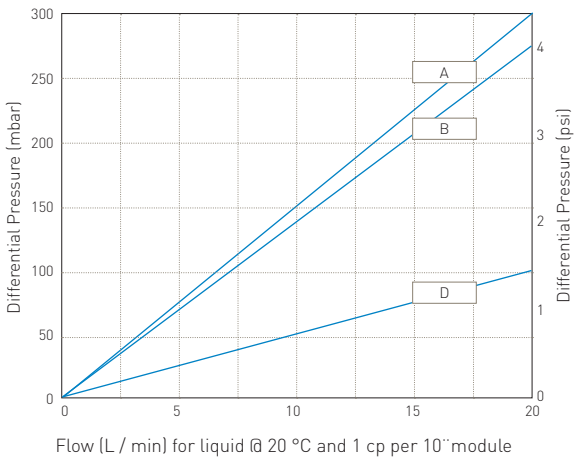
Features

- Fully validated yeast removal and bacterial reduction
- Truly optimized graded density using unique Optimized Depth Construction Technology
- Mechanically strong and chemically resistant polypropylene construction designed for chemical CIP and backwash

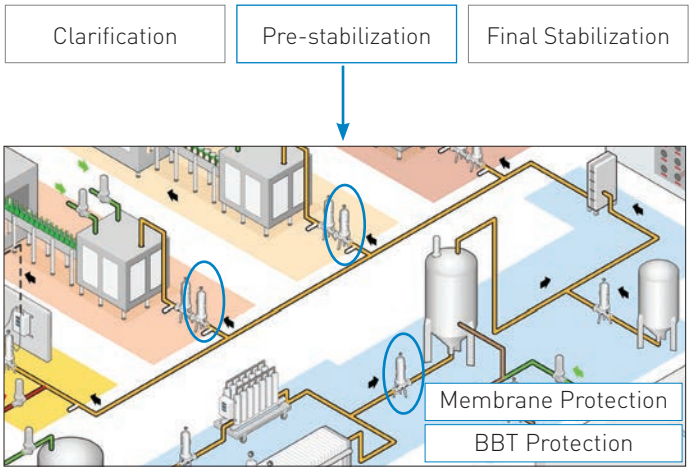
Benefits

- Greater control of beer quality prior to final stabilization processes
- Increased filtration capacity
- Increased service life when combined with regular CIP regeneration

Performance Characteristics



Filtration Stage



Specifications

Materials of Construction

Filtration Media:	Polypropylene
Upstream Support:	Polypropylene
Downstream Support:	Polypropylene
Inner Support Core:	Polypropylene
Outer Protection Cage:	Polypropylene
End Caps:	Polypropylene
End Cap Insert:	316L Stainless Steel
O-rings:	Silicone / EPDM

Food Contact Compliance

Materials conform to the relevant requirements of FDA 21 CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C.

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature		Max Forward dP	
°C	°F	(bar)	(psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Effective Filtration Area (EFA)

10˝ (250 mm) Up to 0.5 m² (5.38 ft²)

Cleaning and Sterilization

PREPOR NG cartridges can be repeatedly steam sterilized in-situ or autoclaved up to 135 °C (275 °F). They can be sanitized with hot water up to 90 °C (194 °F), are compatible with a wide range of chemicals and can be backwashed. Please refer to our Clean-in-Place Support Guide or contact your local Parker representative for more information.

Retention Characteristics

The absolute retention characteristics of PREPOR NG filters have been validated by challenges performed with the following organisms.

Organism	LRV when challenged with a minimum of 10^7 cfu per cm²		
	A	B	D
Saccharomyces cerevisiae	FR	FR	FR
Brettanomyces bruxellensis	FR	FR	FR
Lactobacillus brevis	FR	FR	2.0
Acetobacter oeni	2.0	2.0	1.7
Serratia marcescens	3.9	3.4	1.9

**FR - Fully retentive during challenge*

When expressed as titre reduction "FR" equates to >10^7 per 10˝module.

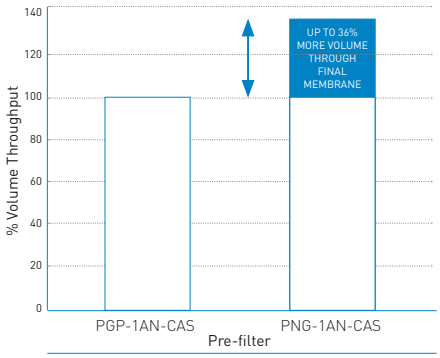
Manufacturing Traceability

Each filter cartridge displays the product name, product code and lot number. Additionally, each module displays a unique serial number providing full manufacturing traceability.

ODC Technology

Optimized Depth Construction (ODC) provides a unique graded density combining longer service life with absolute filtration efficiency.

Performance Benefits



ODC technology combines fine particle retention with increased strength and stability to enhance the performance offered by the PREPOR range.

Ordering information

PNG - [ ] [ ] N - [ ] A [ ]

Code	Length (Nominal)	
1	10˝	(250 mm)
2	20˝	(500 mm)
3	30˝	(750 mm)
4	40˝	(1000 mm)

Code	Micron
A	0.5
B	0.6
D	1.0

Code	End Cap (10 inch)
C	BF / 226 Bayonet
D	Fin / 222
E	Flat Top / 222
G	Recess / 222
R	BF / 222 Bayonet

Code	O-rings
S	Silicone
E	EPDM

VSH & HSL HOUSING RANGE AVAILABLE

DS_BR_01_01/14 Rev. 1B

PEPLYN TF Brewing

Filter Cartridges

PEPLYN TF filters have been specifically designed to protect beer from the passage of filter aids and lees used in primary clarification processes. By combining absolute particle retention, high dirt holding capacity and resistance to blockage with ease of regeneration, PEPLYN TF filters provide the optimum solution for trap filtration.

The carefully constructed polypropylene media ensures insoluble particulate is captured on the surface of the filtration media in a way that it can be easily removed through backwashing. This feature, combined with the strong, rigid construction provides reliable filtration performance over extended operational lifetimes.

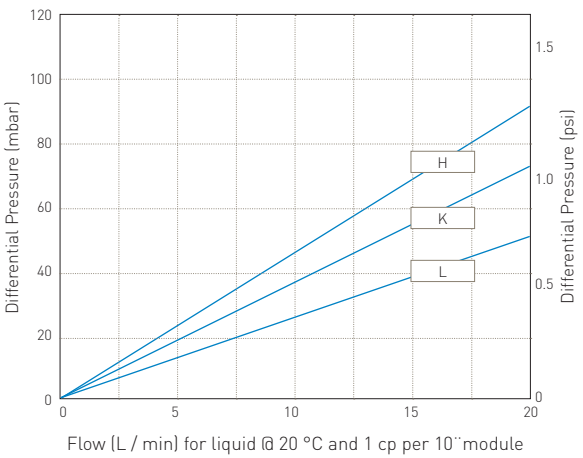
Features

- Robust polypropylene construction designed for chemical CIP and backwash
- High effective filtration area
- A range of absolute retention ratings

Benefits

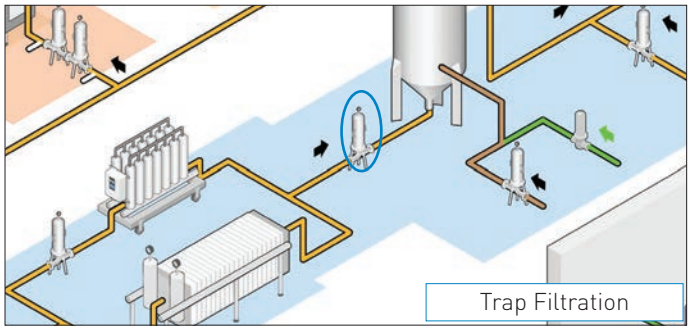
- Extended service life when combined with regular CIP regeneration
- High beer flow and resistance to blockage under high loading
- Defined cut-off to powders and flexibility to optimize the filtration

Performance Characteristics



Filtration Stage

Clarification | Pre-stabilization | Final Stabilization



Specifications

Materials of Construction

Filtration Media:	Polypropylene
Upstream Support:	Polypropylene
Downstream Support:	Polypropylene
Inner Support Core:	Polypropylene
Outer Protection Cage:	Polypropylene
End Caps:	Polypropylene
End Cap Insert:	316L Stainless Steel
O-rings:	Silicone / EPDM

Food Contact Compliance

Materials conform to the relevant requirements of FDA 21 CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C.

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature		Max Forward dP	
°C	°F	(bar)	(psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Effective Filtration Area (EFA)

10˝ (250 mm) Up to 0.7 m^2 (7.53 ft^2)

Cleaning and Sterilization

PEPLYN TF cartridges can be repeatedly steam sterilized in-situ or autoclaved up to 135 °C (275 °F). They can be sanitized with hot water up to 90 °C (194 °F), are compatible with a wide range of chemicals and can be backwashed. Please refer to our Clean-in-Place Support Guide or contact your local Parker representative for more information.

Retention Characteristics

The retention characteristics of PEPLYN TF filter cartridges have been determined by a single-pass technique using suspensions of ISO 12103 Pt. 1 A2 Fine and A4 Course test dust in water.

Micron Rating at various efficiencies						
Efficiency	>99.99%	99.98%	99.90%	99%	95%	90%
Beta Ratio	10000	5000	1000	100	20	10
H	5.00	4.70	4.50	3.50	2.30	1.00
K	10.00	8.00	7.00	4.80	3.80	2.80
L	15.00	12.00	10.00	7.20	6.00	4.50

Manufacturing Traceability

Each filter cartridge displays the product name, product code and lot number. Additionally, each module displays a unique serial number providing full manufacturing traceability.

Ordering information

PTF - [ ] [ ] N - [ ] A [ ]

Code	Length (Nominal)	
1	10˝	(250 mm)
2	20˝	(500 mm)
3	30˝	(750 mm)
4	40˝	(1000 mm)

Code	Micron
H	5
K	10
L	15

Code	End Cap (10 inch)
C	Fin / 226 Bayonet
D	Fin / 222
E	Flat Top / 222
G	Recess / 222
R	BF / 222 Bayonet

Code	O-rings
S	Silicone
E	EPDM

VSH & HSL
HOUSING RANGE AVAILABLE

DS_BR_05_01/14 Rev. 1B

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