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Pasteurizer Replacement Filter Cartridges

For “Sterile” Filtration of Beer

Pasteurizer Replacement filter cartridges are hydrophilic membrane filters designed for reliable retention of spoilage microorganisms in the filtration of beer in the CFS NEO system or standard housings.

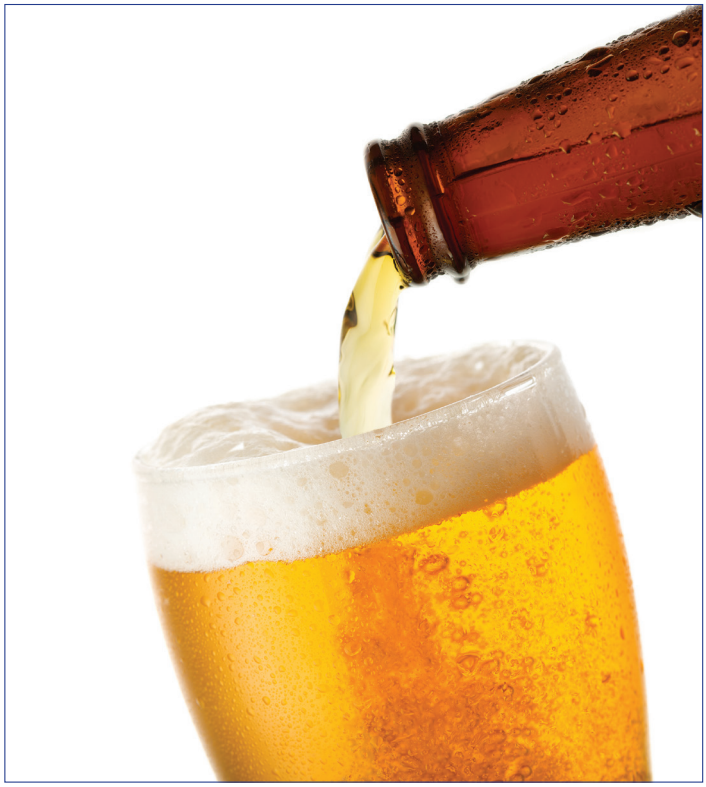
Description

The Pasteurizer Replacement filter cartridge was developed and validated for removal of beer spoilage microorganisms.

The Pasteurizer Replacement filter cartridges are constructed from one layer of polyethersulfone (PES) membrane in a laid-over-pleat configuration. The single open ended (SOE) configuration is designed to fit into the sanitary housings on the CFS NEO system and standard housings to ensure effective microbial reduction and assembly integrity.

Pasteurizer Replacement filter cartridges are suitable for exposure to repeated hot water sanitization and *in situ* steam sterilization cycles for longer service life in the CFS NEO system. The optimized support and drainage materials, provide increased mechanical strength during operation, repeated hot water, chemical and steam sanitization and thus, high throughput.

Features	Benefits
Cartridges resistant to numerous sanitization cycles	· Process reliability · Economical operation · Consistent filtrate quality
Hydrophilic membranes	· Easy to wet and integrity test · Microbial stabilization of beer
Validated with beer spoilage microorganisms	· Brand protection · Increased process safety
Individually serialized cartridges	· Full traceability
Integrity testable	· Brand protection · Documentation for quality records



Quality

- Cartridges produced in a controlled environment
- Manufactured according to ISO 9001:2015 certified Quality Management System
- All final filters are 100% integrity tested before manufacturing release

Food Contact Compliance

Please refer to the Pall website https://www.pall.com/en/food-beverage/compliance-and-safety.html for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.

Test Organism Log Reduction Value (LRV)		
Serratia marcescens (ATCC 14756)	*Lactobacillus brevis* in beer	*Pediococcus damnosus* in beer
8	8	7

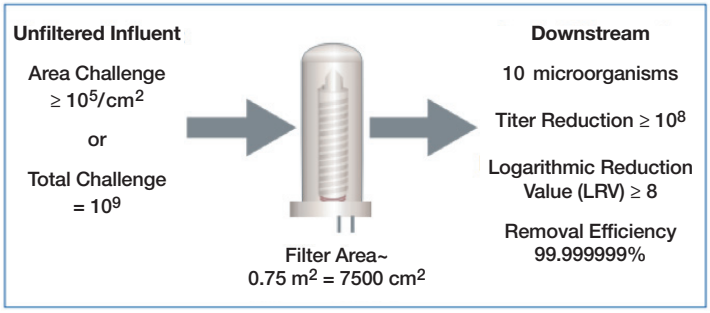


Figure 1: Titer Reduction (TR) definition

$$TR = \frac{\text{Total number of organisms influent to the 10" filter}}{\text{Number of colonies recorded downstream}}$$

Materials of Construction

Component	Description
Filter Media*	Polyethersulfone (Hydrophilic)
Support and Drainage	Polypropylene
Core, Cage, End Cap and Fin End	Polypropylene
Adaptor	Polypropylene with internal stainless steel reinforcing o-ring
O-ring Seal	Ethylene propylene rubber or Silicone elastomer

* Each 10" module contains 0.75m² (8.0 ft²) of effective filtration area.

PAREQII filter cartridge

Technical Information

Operating Characteristics in Compatible Fluids[1]

Maximum Differential Pressure	Operating Temperature
4.0 bard (58.0 psid) (forward pressure)	80 °C (176 °F)
1.0 bard (14.5 psid) (reverse pressure)	40 °C (104 °F)

[1] Compatible fluids are defined as those which do not swell, soften or attack any of the filter componants.

Chemical Cleaning (static soak conditions)[2]

Media	Temperature	Cumulative Exposure
Caustic 2%	50 °C (122 °F)	400 hours
Caustic 2%	80 °C (176 °F)	200 hours

[2] Measured under laboratory test conditions. The actual cumulative time depends on the process conditions.

Pressure Drop[3]

Code	Value
PAREQII	42.5 l/min @ 100 mbar (7.6 US gal @1psi)

[3] Typical initial clean media differential pressure (dP) per 254 mm (10") cartridge for water at 20°C (68°F), viscosity 1 centipoise. For 508, 762 and 1016 mm configurations, divide the differential pressure by 2, 3 and 4 respectively.

Sterilization and Sanitization

Media	Temperature	Cumulative Exposure Time*/cycles
Steam	125 °C (257 °F)	125 x 20 min cycles
Hot water	90 °C (194 °F)	200 x 30 min cycles
Peracetic acid (PAA), 325 ppm PPA (1275 ppm H2O2 to give 1600 ppm of total peroxides)	Ambient	2000 hours

*Measured under laboratory test conditions. The actual cumulative time depends on the process conditions. For applications requiring sterilization or sanitization Pall recommends the use of Code 7 adaptors to ensure filter sealing after cooling. Cartridges should be cooled to system operating temperature prior to use. Contact Pall for recommended procedures.

Ordering Information

Cartridge Part Number

AB ☐ **PAREQII** ☐ **W** ☐

Table 1 Table 2 Table 3

This is a guide to the Part Numbering structure only.
For specific options, please contact Pall.

Table 1: Nominal Length

Code	Description
1	254 mm (10”)
2	508 mm (20”)
3	762 mm (30”)
4*	1016 mm (40”)

* 40” filter elements are suitable for use in a CFS system

Table 2: Adaptor

Code	Description
3	SOE – single open end with flat closed end and external 222 O-rings
7	SOE – single open end with fin end, 2 locking tabs and external 226 O-rings
8	SOE – single open end with fin end and external 222 O-rings
28	SOE – single open end with fin end, 3 locking tabs and external 222 O-rings

Table 3: O-Ring Seal Material

Code	Description
H4	Silicone Elastomer
J	Ethylene Propylene Rubber

PALL CORPORATION

+1-866-905-7255 **Food and Beverage toll free**
foodandbeverage@pall.com

Corporate Headquarters
Port Washington, NY, USA
+1-800-717-7255 toll free (USA)
+1-516-484-5400 phone

European Headquarters
Fribourg, Switzerland
+41 (0)26 350 53 00 phone

Asia-Pacific Headquarters
Singapore
+65 6389 6500 phone

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

Pall Corporation has offices and plants throughout the world. To locate the Pall office or distributor nearest you, visit www.pall.com/contact.

The information provided in this literature was reviewed for accuracy at the time of publication. Product data may be subject to change without notice. For current information consult your local Pall distributor or contact Pall directly.

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

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