



# ZTEC™ WB Series Filter Cartridges

*Pleated Polyethersulfone (PES) Membrane for  
Critical Filtration in Beverage Applications*

Protect your beverage from spoilage. ZTEC WB cartridge filters utilize a special polyethersulfone membrane to provide consistent removal of spoilage organisms and inorganic particulate. The product offers excellent retention efficiency and extended on-stream life making it an ideal filter for the clarification of beer, wine and bottled water. PES membrane available with 0.2, 0.45 and 0.65  $\mu\text{m}$  pore sizes, is designed to meet and surpass the filtration criteria necessary to maintain product quality and characteristics. Produced in an ISO Class 7 cleanroom, the cartridges are integrity tested during production to assure performance and consistency.

## Product Specifications

**Media:** Asymmetric

Polyethersulfone Membrane

**Inner core, end caps, cage:** Polypropylene

**Support layers:** Spunbonded Polypropylene

**Gaskets/O-Rings:**

Buna-N, EPDM, Silicone, Teflon Encapsulated  
Viton (O-Rings only), Viton

**Micron ratings:** 0.2, 0.45, 0.65  $\mu\text{m}$

## Dimensions

**Nominal lengths:**

9.75" 10" 20" 30" 40"

24.8 25.4 50.8 76.2 101.6 cm

**Outside diameter:** 2.7" (6.9 cm)

**Inside diameter:** 1.0" (2.54 cm)

**Surface area:** 7.6 ft<sup>2</sup> (0.7 m<sup>2</sup>) per 10" element

## Operating Parameters

**Maximum sustained**

**operating temperature:**

176°F (80°C) at 20 psid (1.38 bar)

**Maximum differential pressure:**

80 psid @ 70°F (4.14 bar @ 21°C)

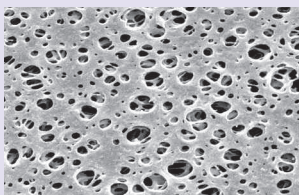
40 psid @ 160°F (2.8 bar @ 71°C)

**Maximum reverse differential pressure:**

40 psid @ 70°F (2.8 bar @ 21°C)

**Recommended change-out pressure:**

35 psid (2.4 bar)



## FEATURES & BENEFITS

- Manufactured in an ISO Class 7 Cleanroom Environment
- 100% flushed with ultrapure DI water and integrity tested
- Low adsorption of protein, color and flavor components
- Steamable/sanitizable for cleaning and reuse
- High log reduction values for spoilage organisms
- PES membrane provides high capacity contaminant loading
- Complete qualification guide available
- Quick wet treatment available

## CERTIFICATIONS

- USP Class VI: Meets USP Class VI Biological Test for Plastics
- FDA Listed Materials: All materials comply with FDA Title 21 of the Code of Federal Regulations Sections 174.5, 177.1520, and 177.2440 as applicable for food and beverage contact.
- European Directive for Food Contact: European Regulation No. 1935/2004 and European Regulation 10/2011: Tested for migration behavior and is suitable for contact with all kinds of foodstuffs with minimal rinse-up. Data available upon request.

## TYPICAL APPLICATIONS

- White Wine
- Sparkling Wine
- Champagne
- Bottled Water
- Red Wine
- Wine/Malt Coolers
- Distilled Spirits
- Beer

# PERFORMANCE SPECIFICATIONS

- Hot DI Water: Filter cartridge will withstand temperatures of 185°F (85°C) for up to 30 consecutive minutes.
- Cleaning/Sanitization: Compatible with most common chemical cleaning, sanitizing and sterilizing agents and with pH range from 1–14. Consult factory for specific compatibility information.
- Steam/Autoclave: Cartridges may be steamed or autoclaved for at least 50 thirty-minute cycles @ 275°F (135°C).

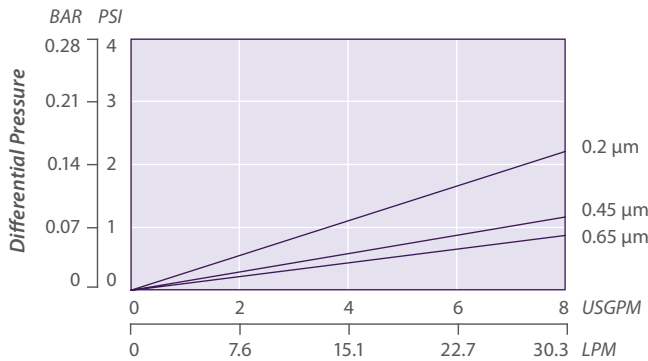
## ZTEC WB NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (inches)	End Configuration	Gasket or O-Ring	Options
ZTEC WB Series	0.2	-5      -20	P    Double Open End	B    Buna-N	-QW   Quick Wet Treatment
	0.45	-9.75*   -30	P2   226/Flat Single Open End	E    EPDM	
	0.65	-10      -40	P3   222/Flat Single Open End	S    Silicone	
			P7   226/Fin Single Open End	T    Teflon encap. Viton (O-Rings only)	
			P8   222/Fin Single Open End	V    Viton	
		AM   Single Open End, Internal O-Ring			
<b>Example: ZTEC WB 0.45-20P2E-QW</b>					
ZTEC WB	0.45	-20	P2	E	-QW

\*Available only for DOE (P) configuration

### ZTEC WB FLOW RATE

Typical Flow Rate Clean Water at Ambient Temperature (per 10" cartridge)



For liquids other than water, multiply pressure drop by the fluid viscosity in centipoise

### TYPICAL BACTERIAL RETENTION

0.2 µm	LRV for <i>Pseudomon aeruginosa</i> ≥ 11
0.45 µm	LRV for <i>Lactobacillus brevis</i> ≥ 7.6 LRV for <i>Oenococcus oeni</i> ≥ 10.0
0.65 µm	LRV for <i>S. cerevisiae</i> ≥ 8.7

### INTEGRITY TEST SPECIFICATIONS

Minimum Bubble Point values and maximum Diffusive Air Flow (per 10-inch cartridge) values for ZTEC WB filters wet with water:

Pore Size	Bubble Point	Diffusive Air Flow
0.2 µm	≥ 26 psig (2.1 bar)	≤ 35 cc/min @ 21 psig (1.7 bar)
0.45 µm	≥ 20 psig (1.4 bar)	35 cc/min @ 16 psig (1.1 bar)
0.65 µm	≥ 17 psig (1.2 bar)	≤ 35 cc/min @ 14 psig (1.0 bar)

#### FOR MORE INFORMATION

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