



CERTAIN-PORE

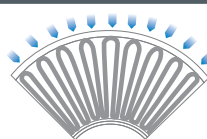
ZCES(D) Type

Major Applications

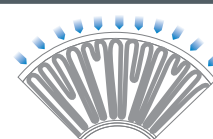
Liquid sterilizing grade filter for food & beverage

Beer, Wine, Japanese Sake, Mineral water,
Vinegar, Soy sauce, Syrup, Flavor and Fragrance,
General water for industrial use and water for
beverages

RAMP structures



Cross-sectional view of a conventional pleated structure



Cross-sectional view of RAMP structures (Roki Advanced Multi Pleats)

Quality standards

- Compliant food hygiene standards
 - FDA 21 CFR
 - EC No.1935/2004, EU No.10/2011
- Heat sterilization durability ※only code7
 - Hot water 90°C (194°F) x 30 minutes x 150 cycles
 - Steam 135°C (275°F) x 30 minutes x 50 cycles
- Integrity test by diffusion flow test
- Traceability by lot number

Features

- Bacteria challenge tests are conducted using bacteria indicator for respective pore size.
- Asymmetric hydrophilic polyethersulfone membrane
- Wide filtration area by RAMP construction
- With pre-filter to inhibit the loading of colloidal suspended material
- Excellent durability for heat stress

Advantages

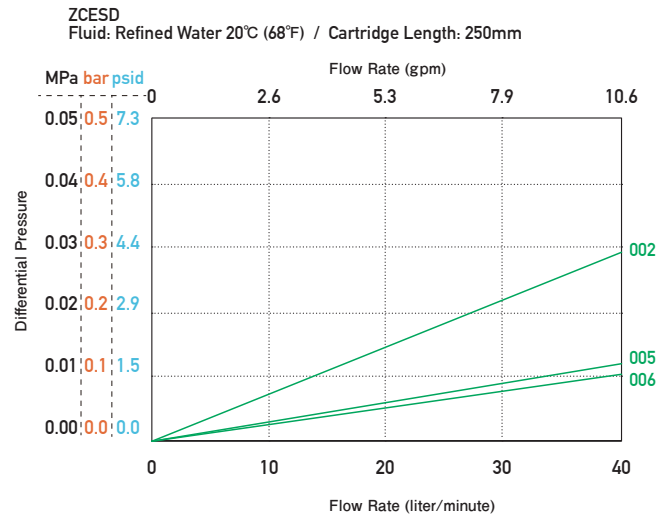
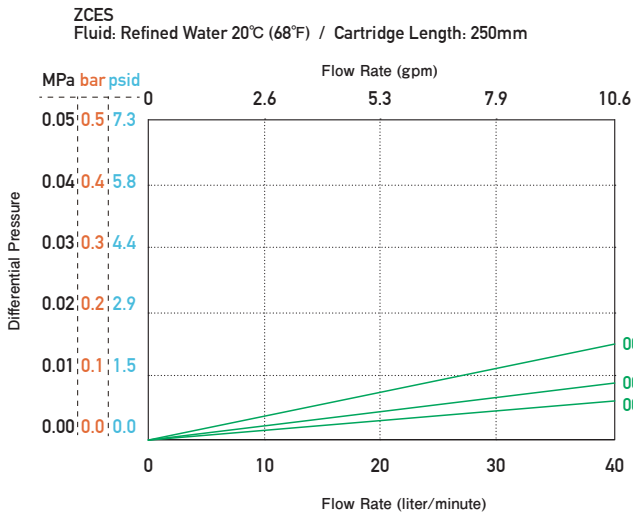
- Stable sterilizing properties
- Low pressure drop and reduced filtration time
- Long service life
- Reusable

Specifications

Grades	ZCES-002	ZCES-005	ZCES-006	ZCESD-002	ZCESD-005	ZCESD-006
Micron Ratings (μm)	0.2	0.45	0.65	0.2	0.45	0.65
E.F.A. (m ² /250L)	0.97	0.97	0.97	0.55	0.71	0.70
Media	Polyethersulfone (PES) Membrane <small>※Only pre-layer of ZCESD is polypropylene.</small>					
Materials	Core/Cage/Support		Polypropylene			
	End Cap		Polypropylene			
Maximum ΔP	0.49MPa at 20°C (71psi at 68°F)					
Maximum Operating Temp	80°C (176°F)					
Dimensions	Length 125 / 250 / 500 / 750 / 1000 mm					
	O.D. 70.0mm					
	I. D. 26.1 (for F) / 26.9 (for 3, 4) / 29.5 (for 7) mm					
Diffusion standard (Wetting liquid: Pure water) per 250mm size filter	0.20MPa: 25ml/min	0.15MPa: 31ml/min	0.10MPa: 19ml/min	0.20MPa: 13ml/min	0.15MPa: 23ml/min	0.10MPa: 13ml/min

*If you need further information on specifications (length, end cap type, etc.), please contact us.

Differential Pressure vs Flow Rate



Sterilization performance

Grade	Biological Indicator	LRV*
002	<i>Brevundimonas diminuta</i> (ATCC 19146)	> 7
	<i>Escherichia coli</i> (ATCC11775)	> 7
005	<i>Lactobacillus brevis</i> (IFO3345)	> 7
	<i>Alicyclobacillus acidoterrestris</i> (ATCC49025)	> 7
006	<i>Lactobacillus brevis</i> (IFO3345)	7
	<i>Saccharomyces cerevisiae</i> (NBRC10217)	> 7

*LRV represents Log Reduction Value (Refer to JIS K3835)

*Challenge bacteria count is more than 1×10^7 cfu/cm².

Ordering Information

Nominal Length	Product Type	Micron Rating	Gasket/O-Ring	End Cap Code	Packaging Code
250L	ZCESD	002	S	F	B
125 = 125mm 250 = 250mm 500 = 500mm 750 = 750mm 1000 = 1000mm	ZCES = Non pre-layer ZCESD = With Pre-layer	002 = 0.2 μm 005 = 0.45μm 006 = 0.65μm	Silicone	F = Flat Gaskets 3 = 2-222 O-Ring + Fin 4 = 2-222 O-Ring 7 = 2-226 O-Ring + Fin	A = 1pc B = 6pcs C = 10pcs F = 25pcs

End Cap Code

Code F



Code 3



Code 4



Code 7



*The contents of the catalog are subject to change without notice.

*The performance data listed in the catalog are Typical values obtained under specific conditions based on our tests.

ROKI GROUP International Pte. Ltd.

6-20-12, Minami-Oi, Shinagawa-ku Tokyo, 140-0013 Japan

TEL: +81-3-5764-1131 FAX: +81-3-5764-0681

www.rokiglobal.com

Manufacturing is based on our Quality Management Systems that meet ISO9001 standards.

Scope

Design, Development, manufacture, and sales of filter cartridges, housings and filtration equipment.



ISO 9001
JQA-QMA16323

MS
CM009

4th Issue

ZCES(D)200737LE