

Surface (Membrane)



#### **CERTAIN-PORE**

# CTL Type

# Major Applications

Gas filtration and sterilization

Tank vent, Fermentation air, Positive pressure air, N<sub>2</sub> gas, CO<sub>2</sub> gas

## **Quality standards**

- Adaptable Food Sanitation Standard
  - ·FDA 21 CFR
  - •EC No.1935/2004, EU No.10/2011
- Heat sterilization durability
  - •142°C (287.6°F) x 30 minutes x 250 cycles Positive pressure: 200 cycles, Back pressure : 50 cycles
- Integrity tested by diffusion test
- Traceability by lot number

#### **Features**

- Bacterial challenge test with Brevundimonas diminuta (ATCC 19146) in liquid and aerosol
- Hydrophobic PTFE membranes with low pressure drop and high airflow
- Use of highly durable materials that are less likely to be damaged by heat

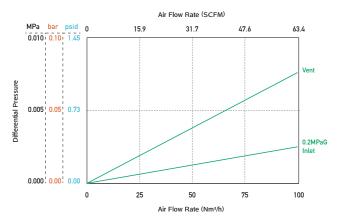
#### Advantages

- Gases can be filtered and sterilized.
- High air supply efficiency
- Can be used repeatedly for high temperature in-line steam
- Can be used for a long time in a high temperature environment

		Specifications			
Grades		002			
Micron Ratings		Liquid: $0.2\mu$ m, Gas: $0.003\mu$ m			
E.F.A.		0.81 m²/250 m m			
	Media	Hydrophobic PTFE Membrane			
Materials	Core/Cage/Support	Polypropylene			
	End Cap	Polypropylene			
Maximum ∆P		0.53MPa at 40℃ (76.9psi at 104°F)			
Dimen- sions	Length	125/250/500/750 mm			
	0.D.	70.0mm			
	I. D.	29.5mm			
Available sterilization methods		Inline steam, Autoclave			
Inline steam sterilization		142°C(287.6°F)x 30 minutes x Positive pressure: 200 cycles, Back pressure: 50 cycles			

#### **Differential Pressure vs Flow Rate**

Fluid: Air / Cartridge Length: 250mm



\*SCFM: Temperature 21.1  $^{\circ}$ C (70  $^{\circ}$ F), Humidity: 0% RH, Standard pressure (101.3kPa)

## Particle Removal Efficiency (Gas)

 $0.003 \,\mu\,\mathrm{m}:>99.999\%$ 

\* NaCl (>0.003  $\mu$  m) CNC particle analysis.

#### Microbial removal performance

	Biological Indicator	LRV*
Liquid	Brevundimonas diminuta (ATCC 19146)	>7
Aerosol	Brevundimonas diminuta (ATCC 19146)	>7

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

#### Estimated continuous use period by operating temperature

60°C (140°F) hot air 12 months

## Ordering Information

		Ü										
Length		Product Type	Micron Rating	O-Ring	End Cap Code	Packaging Code						
2 5 0		-CTL-	002	J	7	В						
	▼		▼	▼	▼	▼						
	125 = 125mm		0.2 μ m	Steam Resistant Silicone	6 = 2-226 O-Ring	A = 1pc						
	250 = 250mm				7 = 2-226 O-Ring + Fin	B = 6pcs						
	500 = 500mm				8 = 2-226 0-Ring + Fin	C = 10pcs						
	750 = 750mm					F = 25pcs						

## **End Cap Code**

Code 6

Code 7

Code 8













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



















<sup>\*</sup>Bacterial challenge level is more than  $1 \times 10^7 \text{CFU/cm}^2$ .

<sup>\*</sup>The contents of the catalog are subject to change without notice.