

SUMAX (Polyethersulfone)



Descriptions

- Constructed of polyethersulfone micro-porous membrane and polypropylene components enable superior durability and particle removal performance.
- Integrity tested after manufacturing using bubble point and air diffusion.

Application

- Electronics : DI-Water, Cleaning Process, Chemical Process
- F&B : Mineral Water, Beverage, Winery, Brewery
- Bio-process, SVP, LVP, WFI, Cosmetics, API

Materials

Media	Hydrophilic Polyethersulfone
Support/Drainage	Polypropylene
Core/Cage	Polypropylene
O-ring/Gasket	EPDM, Silicone, Viton*, TEV*

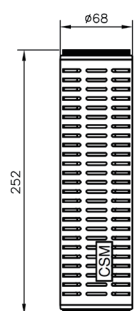
* Viton and Teflon are trademarks of DuPont

Specifications

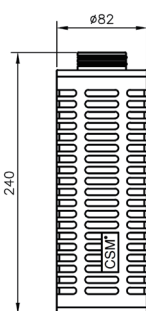
Type	H	HV	UHV
Removal Range	0.1 ~ 5.0μm		
Length [inch]	10~40	10	10
Max. Temperature	80°C		
Max. Differential Pressure	0.3MPa @25°C		

* If you need further information on specification, please contact us

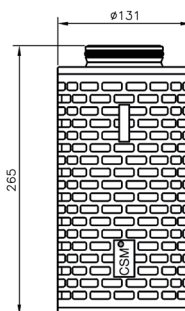
Dimensions



Standard-H



High Volume-HV



Ultra High Volume-UHV

End Cap Options



A, B



C



D



E



F



M

SUMAX (Polyethersulfone)

Type	Membrane	Micron Rating	Description
SI	Symmetric PES membrane	0.1µm 0.2µm 0.45µm 0.65µm 1.2µm 5.0µm	• Symmetric polyethersulfone membrane media • High flow at low pressure drop • Sterilizing grade filter : 0.2µm/ 0.45µm • Liquid validation of B. diminuta retention • USP class VI Biological safety test
SO	Symmetric PES membrane	0.1µm 0.2µm 0.45µm 0.65µm 1.2µm 5.0µm	• Symmetric polyethersulfone membrane media • Long service life • Pre and post filter for DI water • Filtration of aqueous chemical solutions
SD	Asymmetric PES membrane	0.2µm 0.45µm 0.65µm	• Asymmetric polyethersulfone membrane media • High purity polypropylene hardware • High flow at low pressure drop • Long service life • End configurations to fit most housings • Pre and post filter for DI water • Filtration of aqueous chemical solutions
ST	Asymmetric PES membrane + Symmetric PES membrane	0.65µm + 0.2µm 0.65µm + 0.45µm	• Pre Asymmetric, Final Symmetric polyethersulfone membrane double layers media • Long service life • Sterilizing grade filter : 0.2µm / 0.45µm
AT	Asymmetric PES membrane + Asymmetric PES membrane	0.45µm + 0.2µm	• Asymmetric polyethersulfone double layer membrane media • Long service life • Pre and post filter for DI water • Filtration of aqueous chemical solutions

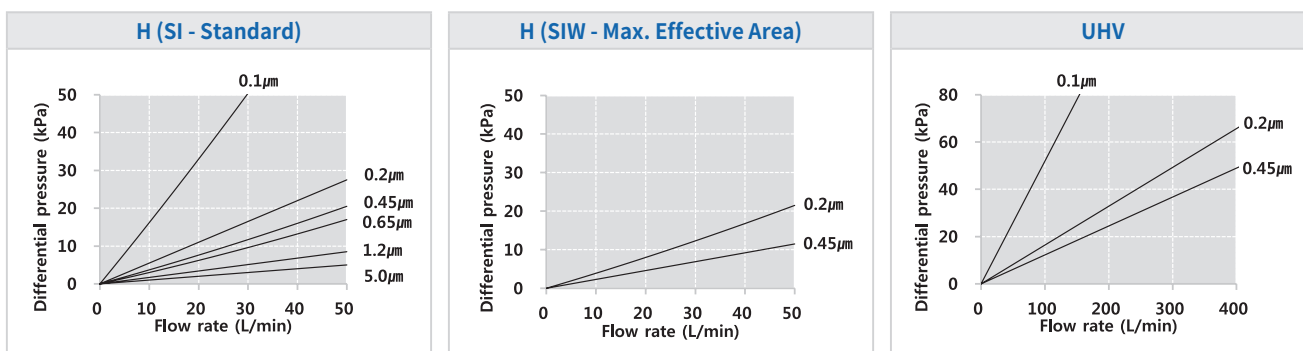
SUMAX (Polyethersulfone)

SI (Symmetric PES membrane)

Sterilizing grade filter

100% Integrity test	• 0.2μm : Bubble point > 40psi • 0.45μm : Bubble point > 28psi
Bacterial retention	• 0.2μm : 10⁷ CFU/cm² Brevundimonas diminuta • 0.45μm : 10⁷ CFU/cm² Serratia marcescens
Bacterial Endotoxin	• < 0.25EU/ml
Toxicity	• USP Class VI, General Safety
Sterilization	• Steamed-in-place 20cycles at 134°C for 30 minutes
Gravimetric Extractables	• ≤ 30 mg

Pressure Drop vs Flow Rate (10" cartridge filter, Water 20°C)



Ordering Information

H (Standard)											UHV										
1	HSIP	2	3	4	5	6	1	HSIWP	2	3	4	5	6	1	USIP	2	3	4	5	6	

※ Max. Effective Area

No. 1

Code	Grade
E	Electronic
P	Pharmaceutical
F	Food & Beverage
Blank	Others

No. 2

Code	Micron Rating
01	0.1μm
02	0.2μm
04	0.45μm
06	0.65μm
12	1.2μm
50	5.0μm

No. 3

Code	End Cap
A	250mm DOE
B	254mm DOE
C	222 O-ring / Flat
D	226 O-ring / Flat
E	222 O-ring / Fin
F	226 O-ring / Fin
M	222 O-ring / Flat
K	334 O-ring / Flat

※ UHV : Only K code

No. 4

Code	Length
1*	10"
2	20"
3	30"
4	40"

* UHV

No. 5

Code	O-ring/Gasket
E	EPDM
S	Silicone
T	TEV
V	Viton

※ UHV : Only E/T code

No. 6

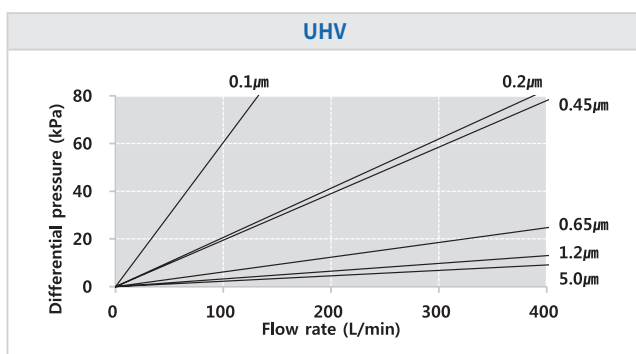
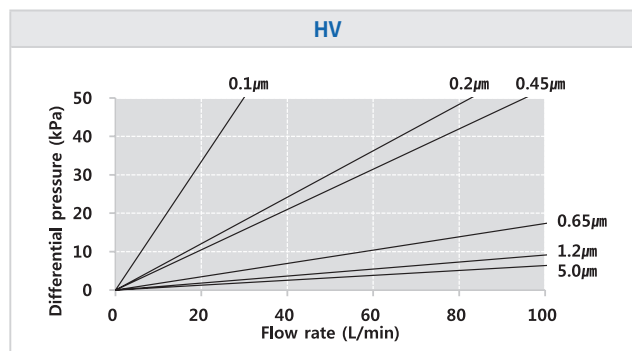
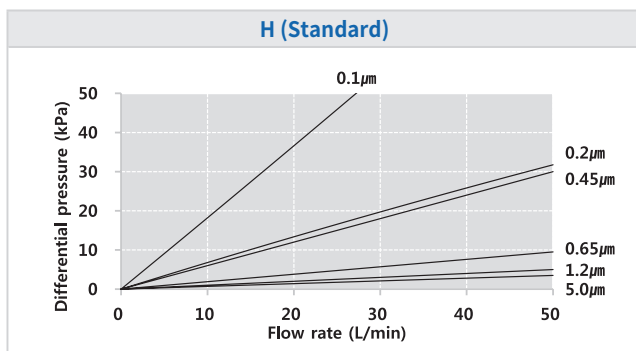
Code	Special Option
C	UPW Cleaning
S	SUS ring Insertion
V	Vacuum Package
None	None O-ring

※ H : Only C/S/V code
UHV : Only C/V code

SUMAX (Polyethersulfone)

SO (Symmetric PES membrane)

Pressure Drop vs Flow Rate (10" cartridge filter, Water 20°C)



Ordering Information

H (Standard)	HV	UHV
1 HSOP 2 3 4 5 6	1 VSOP 2 3 4 5 6	1 USOP 2 3 4 5 6

No. 1

Code	Grade
E	Electronic
P	Pharmaceutical
F	Food & Beverage
Blank	Others

No. 2

Code	Micron Rating
01	0.1µm
02	0.2µm
04	0.45µm
06	0.65µm
12	1.2µm
50	5.0µm

No. 3

Code	End Cap
A	250mm DOE
B	254mm DOE
C	222 O-ring / Flat
D	226 O-ring / Flat
E	222 O-ring / Fin
F	226 O-ring / Fin
M	222 O-ring / Flat
K	334 O-ring / Flat

No. 4

Code	Length
1*	10"
2	20"
3	30"
4	40"

* HV/UHV

No. 6

Code	Special Option
C	UPW Cleaning
S	SUS ring Insertion
V	Vacuum Package
None	None O-ring

※ H : Only C/S/V code
HV/UHV : Only C/V code

No. 5

Code	O-ring/Gasket
E	EPDM
S	Silicone
T	TEV
V	Viton

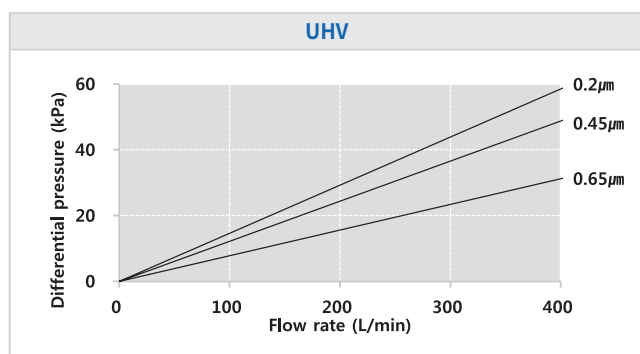
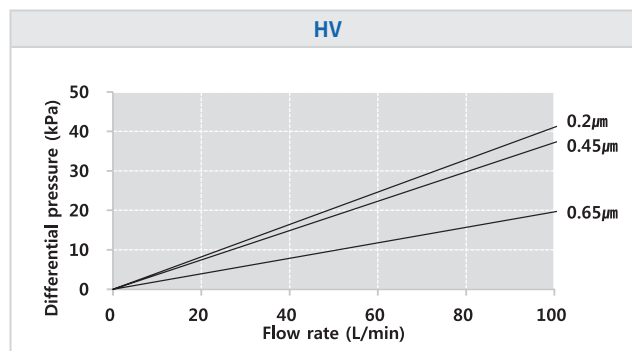
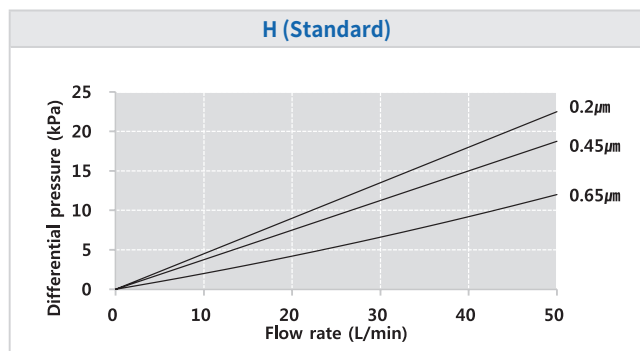
※ HV : Only D / M code
UHV : Only K code

※ UHV : Only E/T code

SUMAX (Polyethersulfone)

SD (Asymmetric PES membrane)

Pressure Drop vs Flow Rate (10" cartridge filter, Water 20°C)



Ordering Information

H (Standard)						HV						UHV								
1	HSDP	2	3	4	5	6	1	VSDP	2	3	4	5	6	1	USDP	2	3	4	5	6

No. 1

Code	Grade
E	Electronic
P	Pharmaceutical
F	Food & Beverage
Blank	Others

No. 2

Code	Micron Rating
02	0.2μm
04	0.45μm
06	0.65μm

No. 3

Code	End Cap
A	250mm DOE
B	254mm DOE
C	222 O-ring / Flat
D	226 O-ring / Flat
E	222 O-ring / Fin
F	226 O-ring / Fin
M	222 O-ring / Flat
K	334 O-ring / Flat

※ HV : Only D / M code
UHV : Only K code

No. 4

Code	Length
1*	10"
2	20"
3	30"
4	40"

* HV/UHV

No. 5

Code	O-ring/Gasket
E	EPDM
S	Silicone
T	TEV
V	Viton

※ UHV : Only E/T code

No. 6

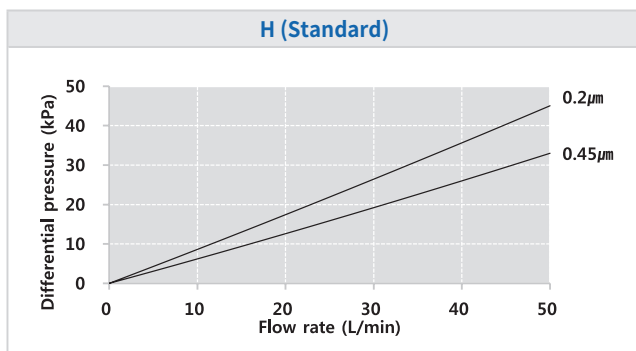
Code	Special Option
C	UPW Cleaning
S	SUS ring Insertion
V	Vacuum Package
None	None O-ring

※ H : Only C/S/V code
HV/UHV : Only C/V code

SUMAX (Polyethersulfone)

ST (PES membrane _ Double layers)

Pressure Drop vs Flow Rate (10" cartridge filter, Water 20°C)



Ordering Information

H (Standard)

1 HSTP 2 3 4 5 6

No. 1

Code	Grade
E	Electronic
P	Pharmaceutical
F	Food & Beverage
Blank	Others

No. 2

Code	Micron Rating
02	Asymmetric 0.65µm / Symmetric 0.2µm
04	Asymmetric 0.65µm / Symmetric 0.45µm

No. 3

Code	End Cap
A	250mm DOE
B	254mm DOE
C	222 O-ring / Flat
D	226 O-ring / Flat
E	222 O-ring / Fin
F	226 O-ring / Fin
M	222 O-ring / Flat

No. 4

Code	Length
1	10"
2	20"
3	30"
4	40"

No. 6

Code	Special Option
C	UPW Cleaning
S	SUS ring Insertion
V	Vacuum Package
None	None O-ring

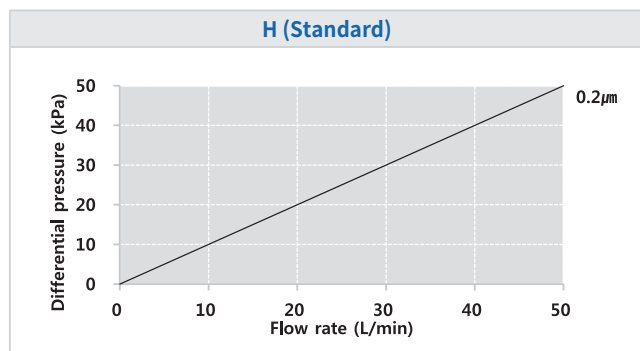
No. 5

Code	O-ring/Gasket
E	EPDM
S	Silicone
T	TEV
V	Viton

SUMAX (Polyethersulfone)

AT (PES membrane _ Double layers)

Pressure Drop vs Flow Rate (10" cartridge filter, Water 20°C)



Ordering Information

H (Standard)

1 HATP 2 3 4 5 6

No. 1

Code	Grade
E	Electronic
P	Pharmaceutical
F	Food & Beverage
Blank	Others

No. 2

Code	Micron Rating
02	Asymmetric 0.45µm / Asymmetric 0.2µm

No. 3

Code	End Cap
A	250mm DOE
B	254mm DOE
C	222 O-ring / Flat
D	226 O-ring / Flat
E	222 O-ring / Fin
F	226 O-ring / Fin
M	222 O-ring / Flat

No. 4

Code	Length
1	10"
2	20"
3	30"
4	40"

No. 6

Code	Special Option
C	UPW Cleaning
S	SUS ring Insertion
V	Vacuum Package
None	None O-ring

No. 5

Code	O-ring/Gasket
E	EPDM
S	Silicone
T	TEV
V	Viton