



Stainless Steel Metal Gas Filter

Standard Type

No. SSF-1
FEB. 2025



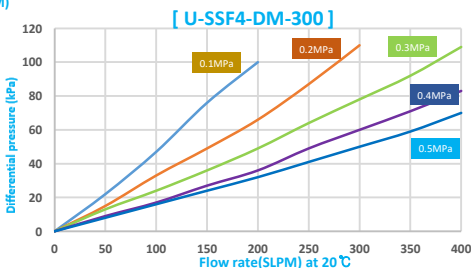
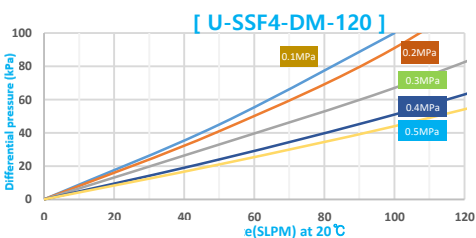
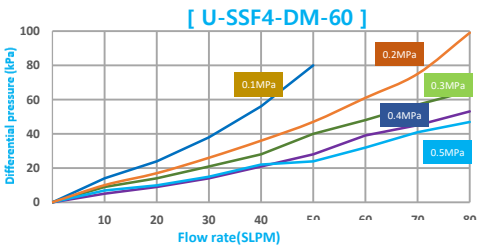
Features

- Ultra-high purity in-line gas filter.
- Excellent compatibility with highest purity semiconductor process gas.
- Wide range flow rate from 60 to 300 SLPM.
- High temperature and dynamic pressure applications.
- D.I water cleaned, assembled, tested & packaged in the certified clean room.

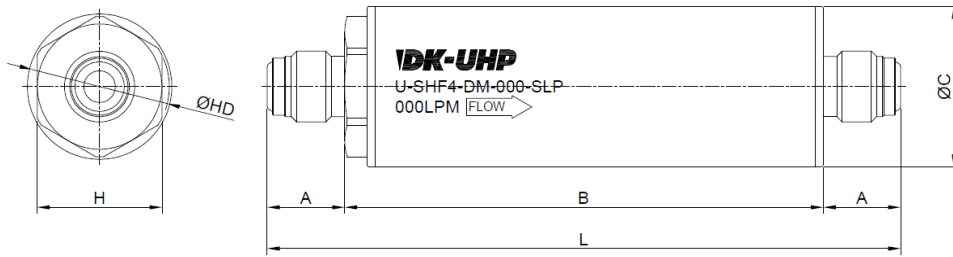
Specification

Size	1/4"	1/2"
Removal Rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 μm	
Rated Flow @ 10 ⁹	15 SLPM	
	60 SLPM	
	120 SLPM	
	200 SLPM	
	300 SLPM	
Materials	Filter element	316L Stainless Steel
	Electropolished housing	316L Stainless Steel
		316L VAR Stainless Steel
Element Operating Conditions	Maximum inlet pressure	21 MPa (210kgf/cm ²) at 20 °C
	Maximum differential pressure	15 MPa (153kgf/cm ²) at 20 °C
	Maximum operating temperature	460 °C (Inlet gas)
Helium Leak Rating	$\leq 1 \times 10^{-9}$ atm.cc/s	
Surface Finish Interior	$\leq \text{Ra } 5\mu\text{in}$	

Performance Data

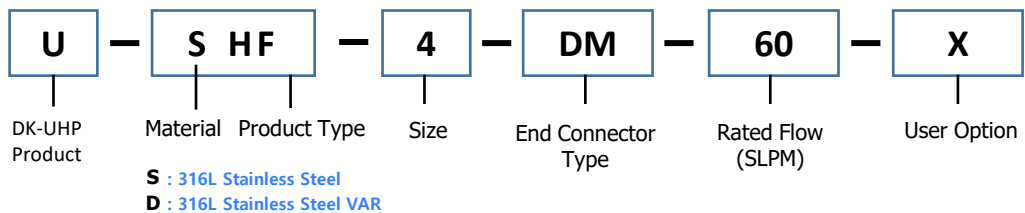


Ordering Information and Dimensions



Dimensions (mm)						
Part No.	A	B	C	HD	H	L
U-SHF4-DM-100	15.5	53	32	28	25	84
U-SHF4-DK-100	10.4	52.2	32	28	25	73
U-SHF8-DM-100	19	53	32	28	25	91
U-SHF8-DK-100	12	53	32	28	25	77
U-SHF4-DM-150	15.5	53	32	28	25	84
U-SHF4-DK-150	10.4	52.2	32	28	25	73
U-SHF8-DM-150	19	53	32	28	25	91
U-SHF8-DK-150	12	53	32	28	25	77
U-SHF4-DM 600	15.5	96	32	28	25	127
U-SHF4-DK 600	10.4	95.2	32	28	25	116
U-SHF8-DM 600	19	96	32	28	25	134
U-SHF8-DK 600	12	96	32	28	25	120

How to order



Product Type	Size	End Connector Type	Rated flow (SLPM)	User Option
SHF	4: 1/4"	DM: DCR Male	100	Blank : Standard
	8: 1/2	DK: DK-Lok	150	X : Customization No.
			600	

Note) DCR : DK-Metal Face Seal

Safe Filter Selection

The selection of a filter for any application or system design must be considered to ensure safe performance. Filter function, filter rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. DK-UHP accepts no liability for any improper selection, installation, operation or maintenance

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 www.dkuhp.com	DK-UHP Corporation Mailing Address 1465 Seobu-ro, Juchon-myeon Gimhae-si, Gyeongsangnam-do, South Korea 621-842	DK-UHP Contact Information Tel. (82) 55-338-0114 Fax. (82) 55-901-0143 E-mail : Sales@dkuhp.com	For International Customers Tel. (82) 55-338-031/2 Fax. (82) 55-901-0142 E-mail : Sales@dkuhp.com
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Stainless Steel Metal Gas Filter

High Flow Low Differential Pressure Type

No. SHLDPF-1
FEB. 2025

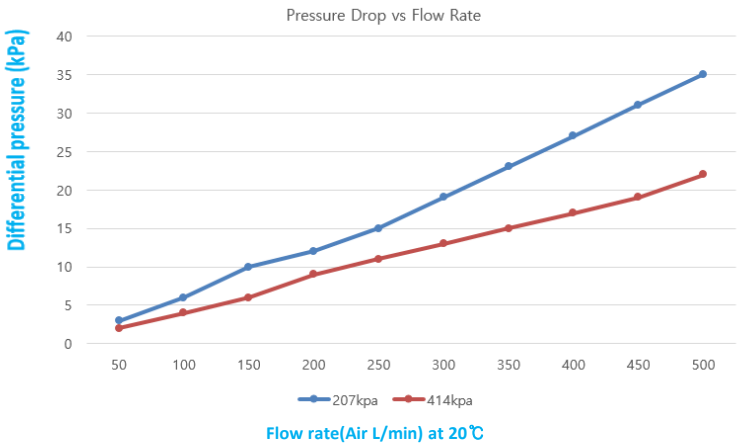


Features

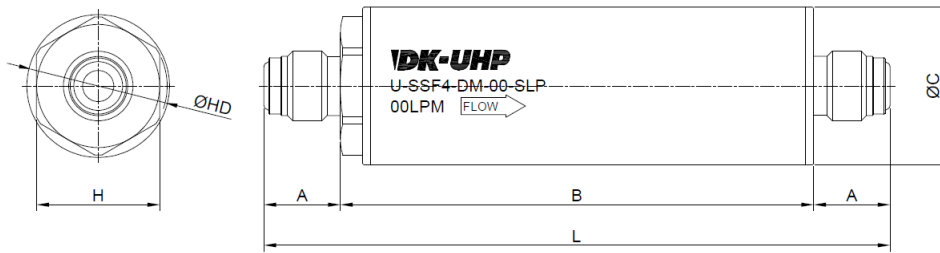
- Ultra-high purity in-line gas filter.
- Excellent compatibility with highest purity semiconductor process gas.
- High temperature and dynamic pressure applications.
- D.I water cleaned, assembled, tested & packaged in the certified clean room.

Specification

Size	1/4"	1/2"
Removal Rating	$\geq 0.0025\ \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to $0.0025\ \mu\text{m}$	
Materials	Filter element	316L Stainless Steel
	Electropolished housing	316L VAR Stainless Steel
Element Operating Conditions	Maximum inlet pressure	2500psig (172.5bar) at 20 °C
	Maximum differential pressure	500psig (34.5bar) at 20 °C
	Maximum operating temperature	460 °C (Inlet gas)
Helium Leak Rating	$\leq 1 \times 10^{-9}\ \text{atm.cc/s}$	
Surface Finish Interior	$\leq \text{Ra } 5\mu\text{in}$	

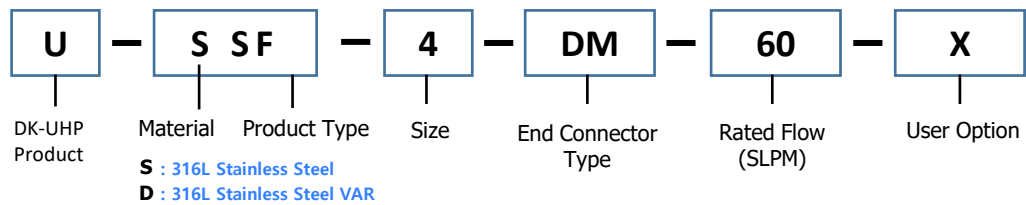


Ordering Information and Dimensions



Dimensions (mm)						
Part No.	A	B	C	HD	H	L
U-SSF4-DM-15	15.5	53	29	28	25	84
U-SSF4-DK-15	10.4	52.2	29	28	25	73
U-SSF4-DM-60	15.5	53	29	28	25	84
U-SSF4-DK-60	10.4	52.2	29	28	25	73
U-SSF8-DM-60	19	53	29	28	25	91
U-SSF4-DM-120	15.5	96	29	28	25	127
U-SSF4-DK-120	10.4	95.2	29	28	25	116
U-SSF8-DM-120	19	96	29	28	25	134
U-SSF8-DK-120	12	96	29	28	25	120
U-SSF4-DM 200	15.5	98	35	33	30	129
U-SSF4-DK 200	10.4	97.2	35	33	30	118
U-SSF8-DM 200	19	98	35	33	30	136
U-SSF8-DK 200	12	98	35	33	30	122
U-SSF4-DM 300	15.5	98	35	33	30	129
U-SSF4-DK 300	10.4	97.2	35	33	30	118
U-SSF8-DM 300	19	98	35	33	30	136
U-SSF8-DK 300	12	98	35	33	30	122

How to order



Product Type	Size	End Connector Type	Rated flow (SLPM)	User Option
SSF DSF HSF	4: 1/4"	DM: DCR Male	15	Blank : Standard
	8: 1/2	DK: DK-Lok	60	X : Customization No.
			120	
			200	
			300	

Note) DCR : DK-Metal Face Seal

Safe Filter Selection

The selection of a filter for any application or system design must be considered to ensure safe performance. Filter function, filter rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. IDK-UHP accepts no liability for any improper selection, installation, operation or maintenance

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 Filters & IGS www.dkuhp.com	 Corporation Mailing Address 1465 Seobu-ro, Juchon-myeon Gimhae-si, Gyeongsangnam-do, South Korea 621-842	DK-UHP Contact Information Tel. (82) 55-338-0114 Fax. (82) 55-901-0143 E-mail : Sales@dkuhp.com	For International Customers Tel. (82) 55-338-031/2 Fax. (82) 55-901-0142 E-mail : Sales@dkuhp.com
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Stainless Steel Metal Gas Filter

High Flow Type

No. SHF-1
FEB. 2025

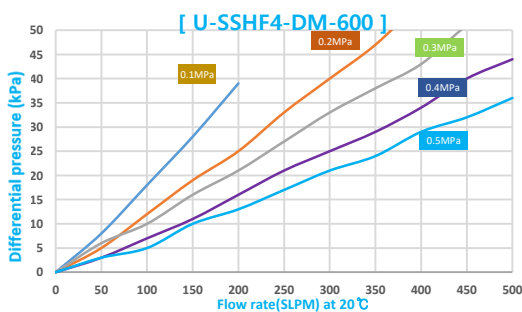
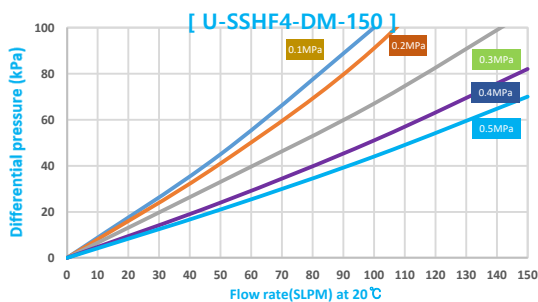
Features

- Ultra-high purity in-line gas filter.
- Excellent compatibility with highest purity semiconductor process gas.
- Wide range flow rate from 60 to 300 SLPM.
- High temperature and dynamic pressure applications.
- D.I water cleaned, assembled, tested & packaged in the certified clean room.

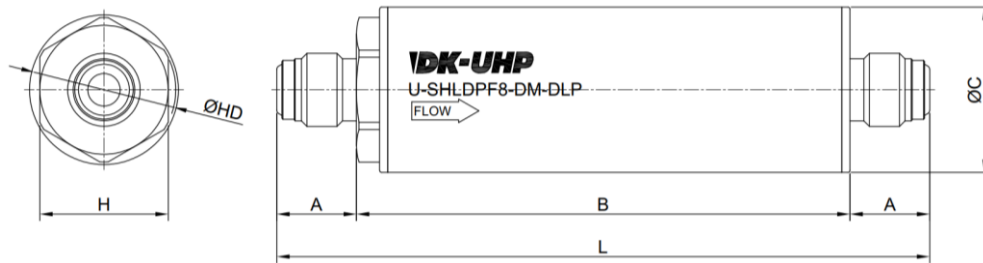
Specification

Size	1/4"	1/2"
Removal Rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to $0.0025 \mu\text{m}$	
Rated Flow @ 10^9	100 SLPM (MAX 150SLPM)	
	150 SLPM (MAX 200SLPM)	
	600 SLPM (MAX 800SLPM)	
Materials	Filter element	316L Stainless Steel
	Electropolished housing	316L Stainless Steel
		316L VAR Stainless Steel
Element Operating Conditions	Maximum inlet pressure	12 MPa (122kgf/cm ²) at 20 °C
	Maximum differential pressure	10 MPa (101kgf/cm ²) at 20 °C
	Maximum operating temperature	460 °C (Inlet gas)
Helium Leak Rating	$\leq 1 \times 10^{-9}$ atm.cc/s	
Surface Finish Interior	$\leq \text{Ra } 5\mu\text{in}$	

Performance Data



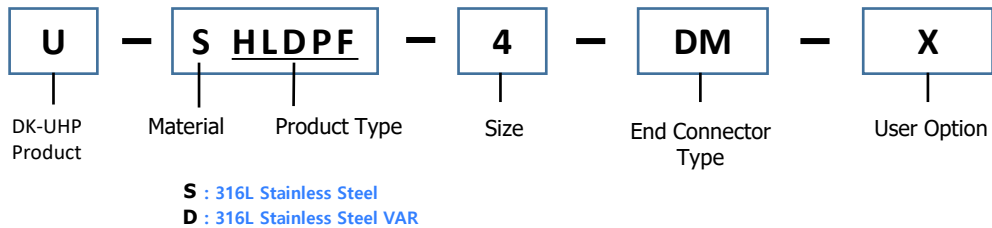
Ordering Information and Dimensions



Dimensions (mm)

Part No.	A	B	C	HD	H	L
U-SHLDPF8-DM-DLP	18.4	90.2	38.1	(31)	26.9	127

How to order



Product Type	Size	End Connector Type	Rated flow (SLPM)	User Option
SHF	4: 1/4"	DM: DCR Male	-	Blank : Standard
	8: 1/2	DK: DK-Lok	-	X : Customization No.
			-	

Note) DCR : DK-Metal Face Seal

Safe Filter Selection

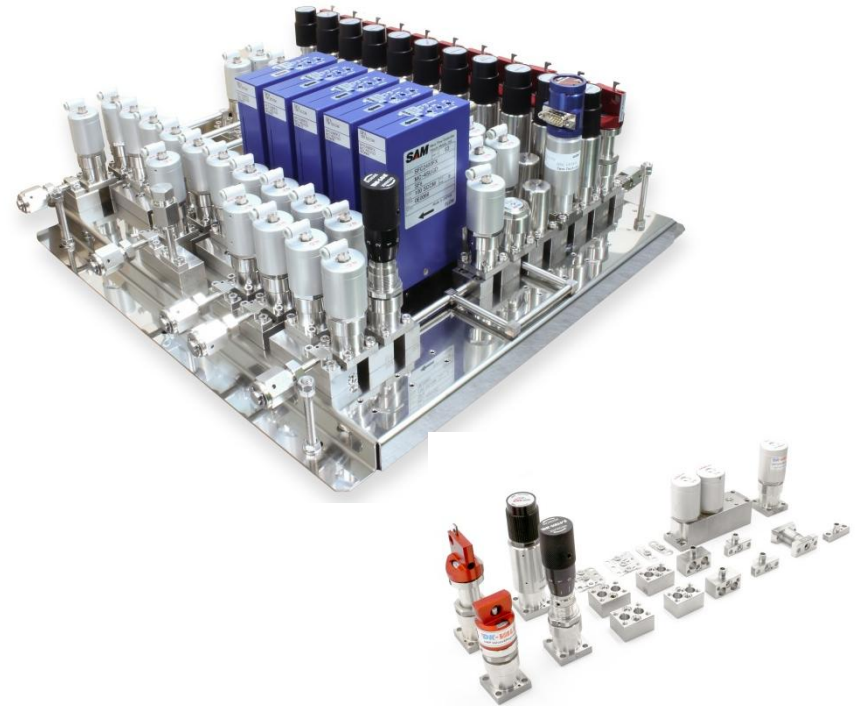
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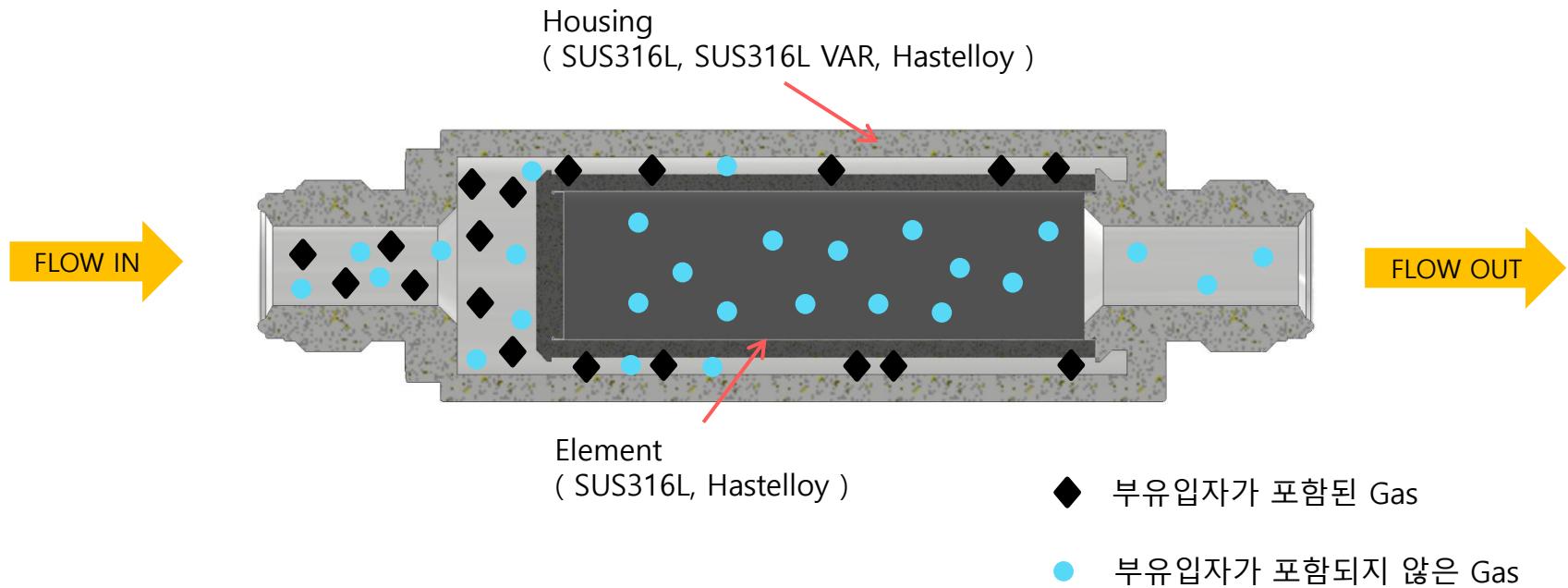
DK-UHP Filters & IGS www.dkuhp.com	DK-UHP Corporation Mailing Address 1465 Seobu-ro, Juchon-myeon Gimhae-si, Gyeongsangnam-do, South Korea 621-842	DK-UHP Contact Information Tel. (82) 55-338-0114 Fax. (82) 55-901-0143 E-mail : Sales@dkuhp.com	For International Customers Tel. (82) 55-338-031/2 Fax. (82) 55-901-0142 E-mail : Sales@dkuhp.com
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- ✓ Element Weld
- ✓ Gas Filter 전문 제조



- ✓ Integrated Gas System Module
- ✓ Base Block, Component, Seal 공급
- ✓ 1.125 W-Seal



UHP Gas Filters

반도체 산업분야에서 사용되는 고순도 기체에 포함된 부유 입자(Particle)를 제거하는 장치

Gas Filter 이론 및 특성

■ DK-UHP의 Gas Filter는 99.9999999%를 만족합니다. (9LRV) – SEMI F-38-0699

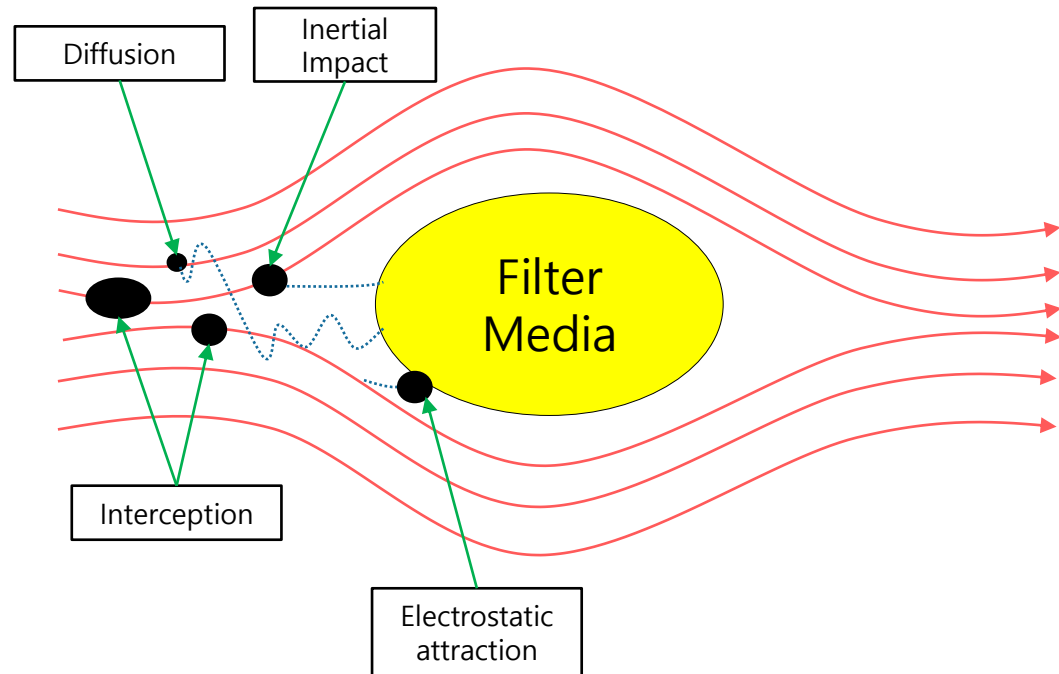
Filtration Mechanisms

Inertial Impact 충돌 ($0.3\mu\text{m}$ 이상)

Interception 차단 ($1\mu\text{m}$ 이상)

Diffusion 확산 ($0.1\mu\text{m}$ 이하)

Electrostatic attraction 정전기 (all)



- Inertial Impact (관성충돌) : 무게, 속도에 따른 관성의 원리로 가스의 흐름에서 벗어나 Media와 충돌하여 포집
- Interception (차단) : 가스 내 Particle이 Media 공극보다 크기 때문에 포집 (직접 포집 $0.1\sim 1\mu\text{m}$)
- Brownian Diffusion (확산) : $0.1\mu\text{m}$ 이하의 Particle은 연속적으로 부딪히게 되며, 무작위 방향으로 이동(브라운 운동)하며 포집
- Electrostatic Attraction (정전기) : Media 와 Particle 사이에 발생하는 전기적인 힘에 의해 포집

Stainless Steel Gas Filter

STD Gas Filter (표준 사양)



High Flow Gas Filter (고유량)

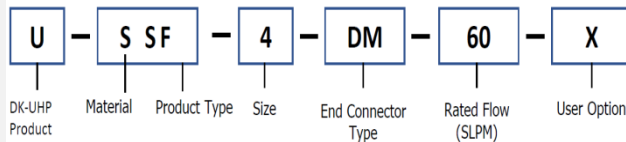


Low Pressure Drop Gas Filter (저차압)



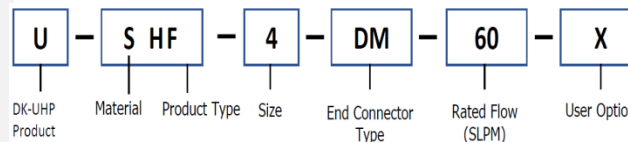
SSF Series

- Materials : Housing & Element 316L
- 사용유체 : 불활성 Gas에 적합.
- 사용환경 : 460°C 고온, 150bar 고압
- Model : 60/120/200/300 LPM



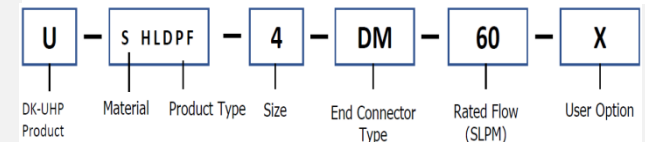
SHF Series

- Materials : Housing & Element 316L
- 사용유체 : 불활성 Gas에 적합.
- 사용환경 : 460°C 고온, 120bar 고압
- Model : 100/150/600 LPM

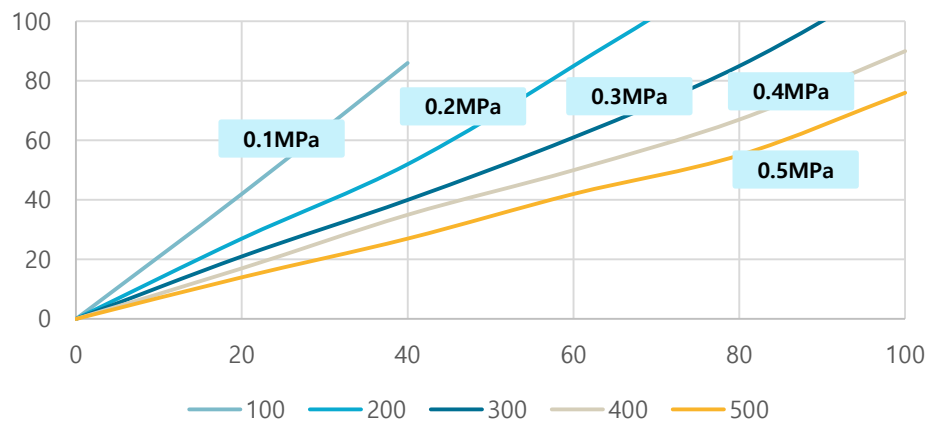
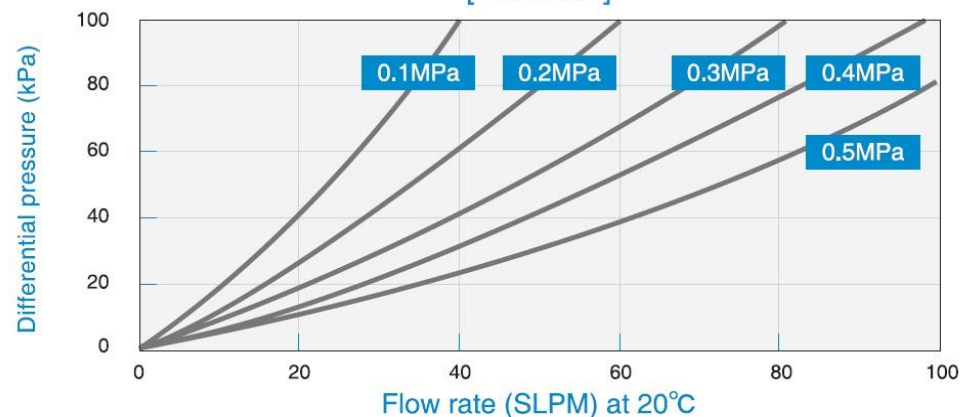
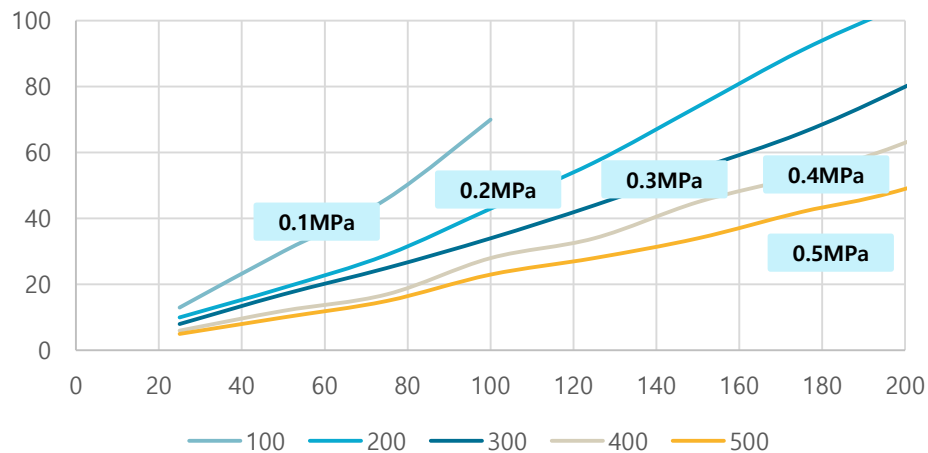
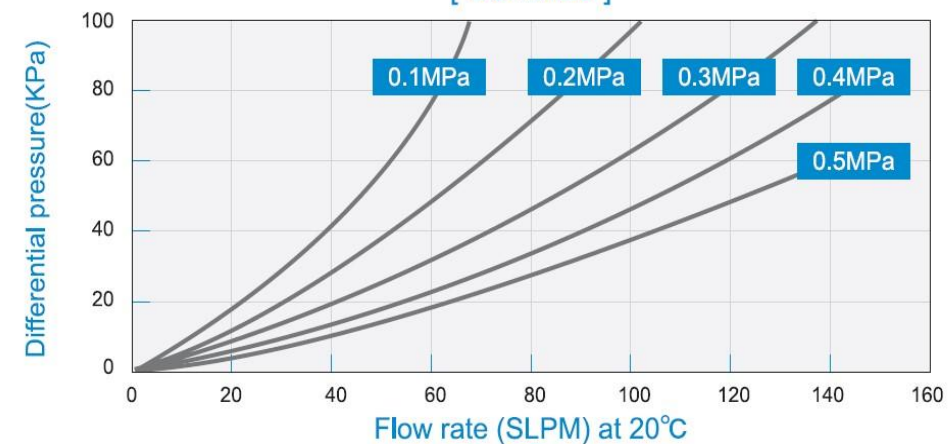


HLDPF Series

- Materials : Housing 316L VAR
Element 316L
- 사용유체 : 불활성 Gas에 적합.
- 사용환경 : 450°C 고온, 172bar 고압
- Model : 500 LPM



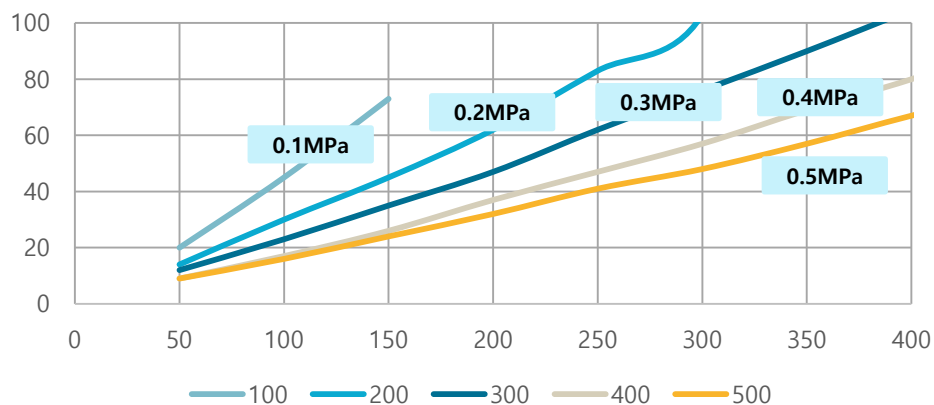
Stainless Steel Gas Filter Flow Rate

DK-UHP
SSF DM 60 (표준 사양)

T (경쟁사)
[SS-A60]

DK-UHP
SSF DM 120 (표준 사양)

T (경쟁사)
[SS-A120]


Stainless Steel Gas Filter Flow Rate

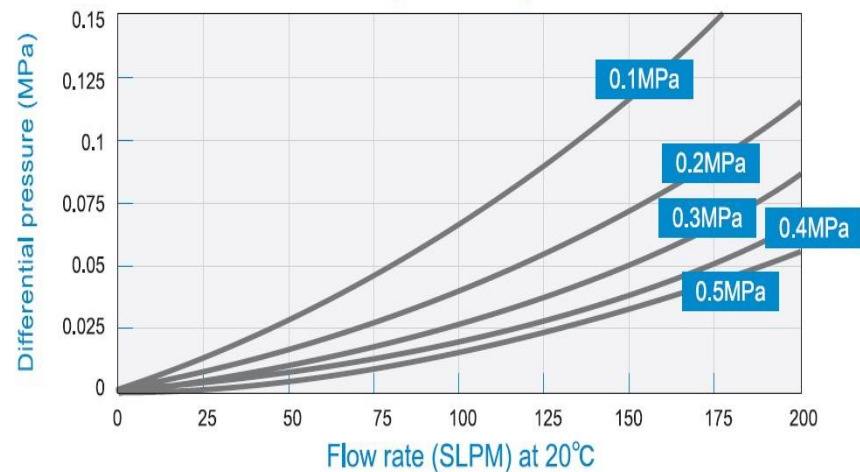
DK-UHP

SSF DM 200 (표준 사양)



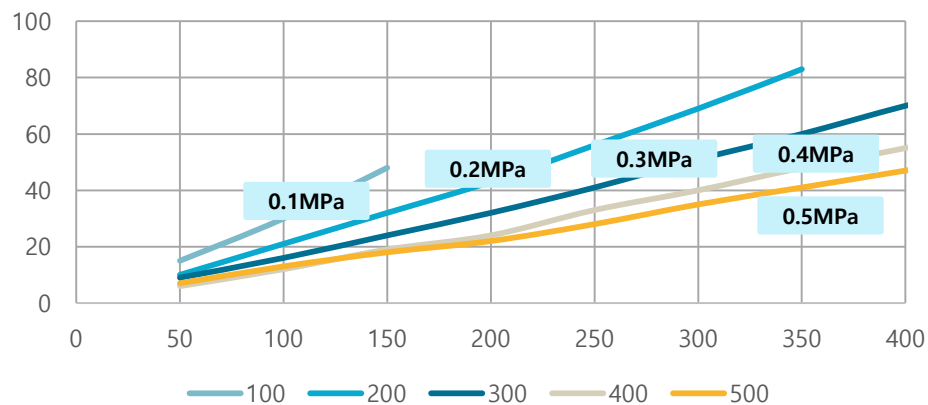
T (경쟁사)

[SS-A200]



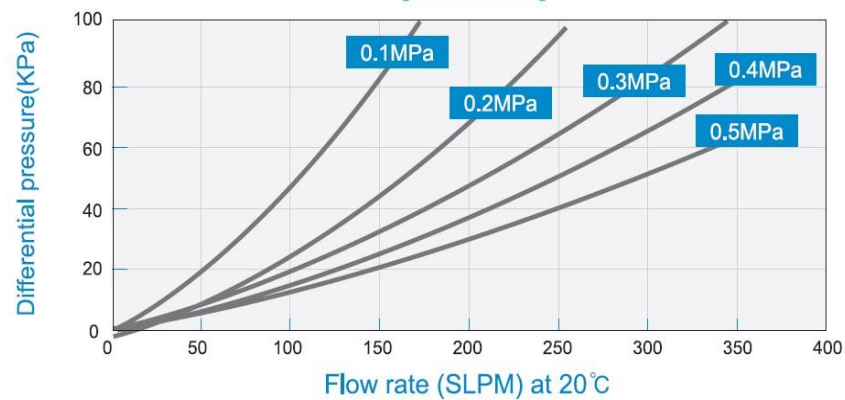
DK-UHP

SSF DM 300 (표준 사양)



T (경쟁사)

[SS-A300]

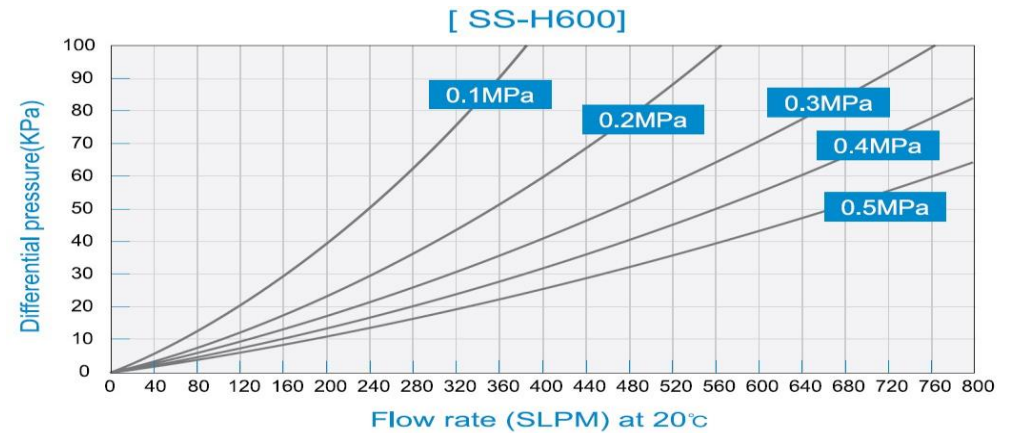
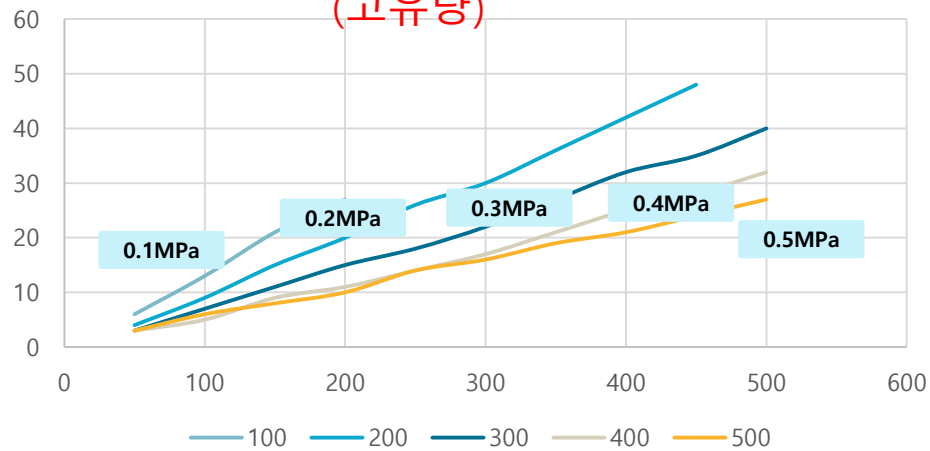


Stainless Steel Gas Filter Flow Rate

DK-UHP

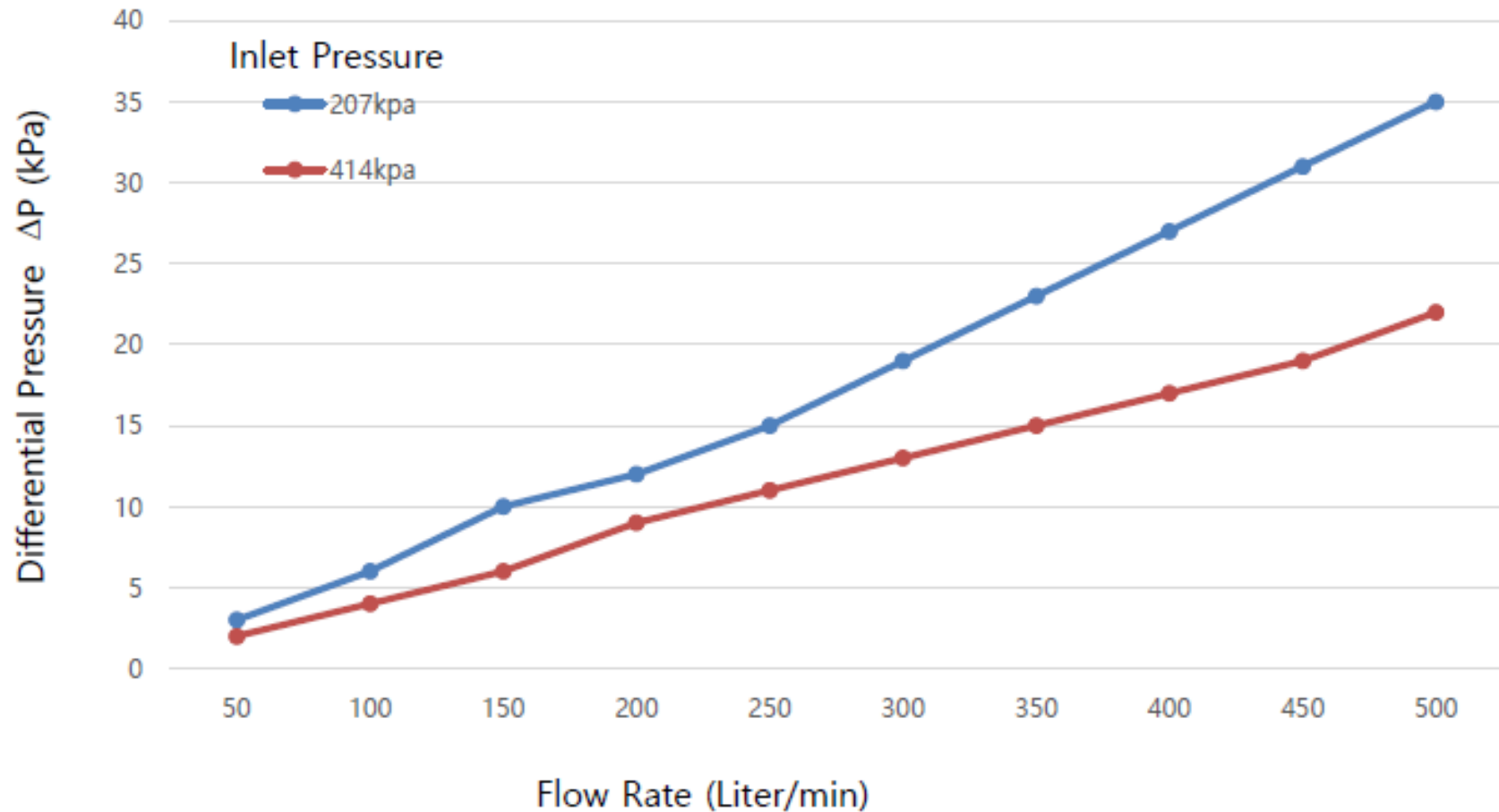
T (경쟁사)

SHF DM 600
(고유량)



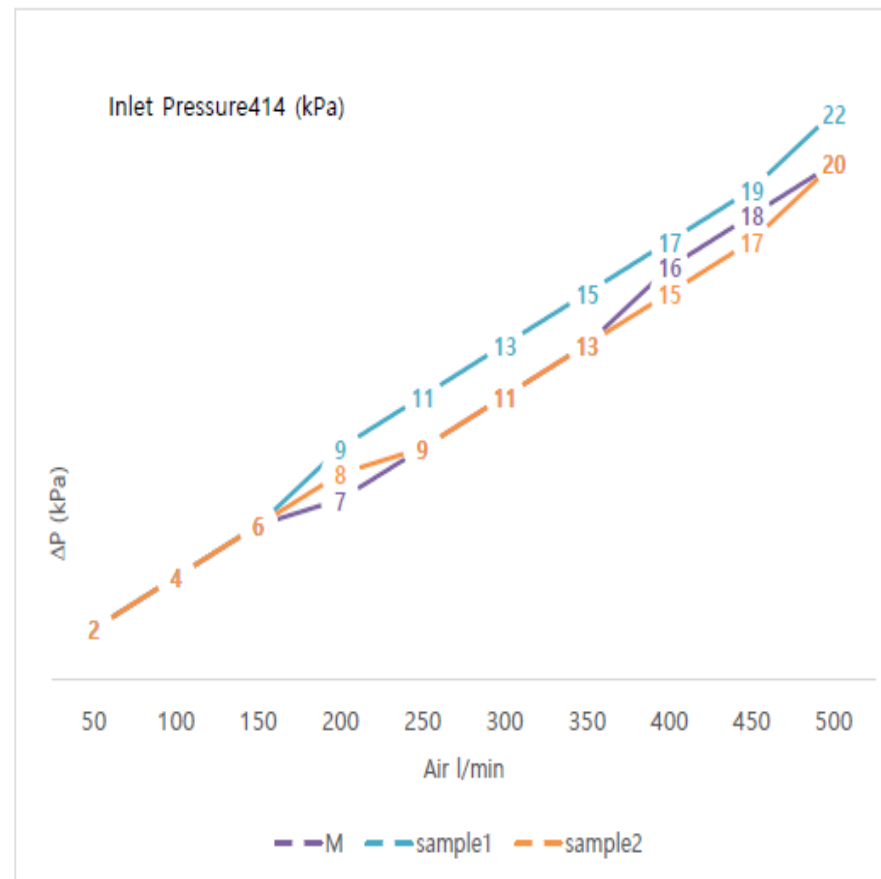
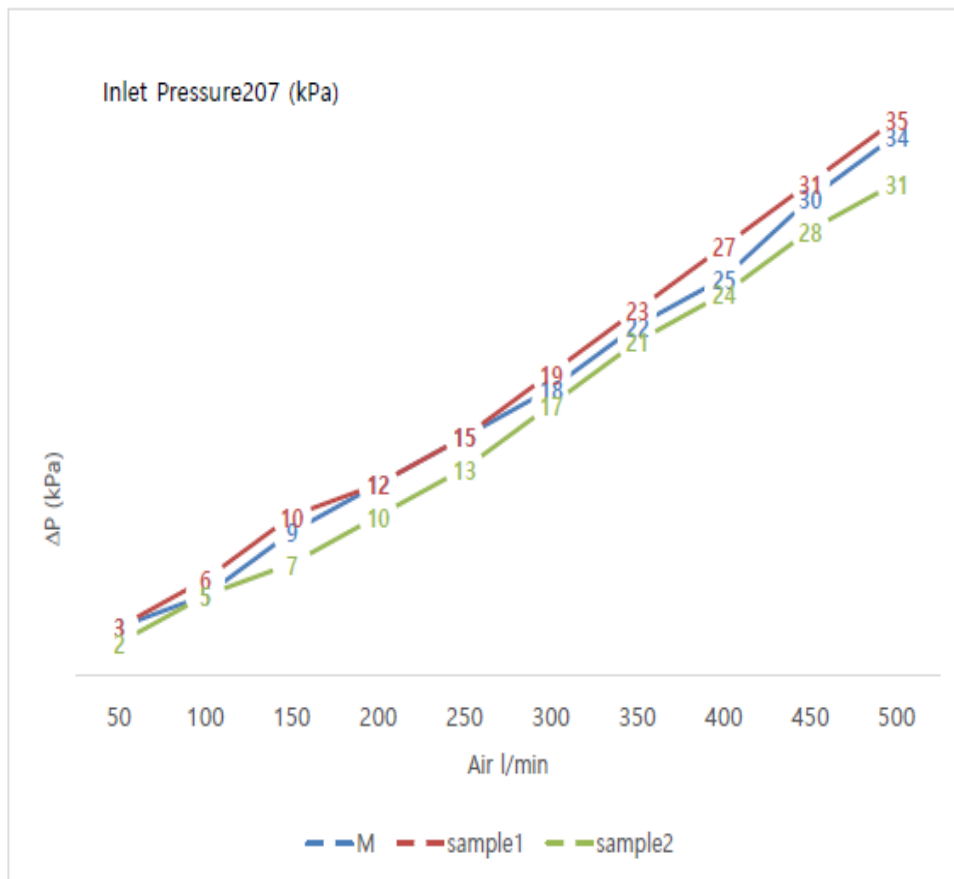
Low Pressure Drop (저차압) In-Line Gas Filter Flow Rate

Pressure Drop vs Flow Rate



Low Pressure Drop (저차압) In-Line Gas Filter Flow Rate

Comparison Chart



M (경쟁사), Sample 1 & 2 DK-UHP

Gas Filter 진행 계획

Hastelloy In Line Filter (내부식)



HSF series

- 사양 : 15 / 60 / 120 / 200 / 300 SLPM
- Materials : Hastelloy
- 완료일정 : 2025.06

HHF series (고유량)

- 사양 : 100 / 150 / 600 SLPM
- Materials : Hastelloy
- 완료일정 : 2025.06

SHLF series (저차압)

- 사양 : 1500 / 2000 / 3000 SLPM
- Materials : SUS316L, Hastelloy
- 완료일정 : 2025.09

IGS Filter (소형)



IGS series

- 사양 : W-seal 30/60/120 SLPM
C-seal 30/60/120
- Materials : SUS316L, Hastelloy
- 완료일정 : 2025.07

Gasket Filter



IGS Series



MFS Series

IGS series

- 사양 : 40 SLPM
- Materials : SUS316L, SUS316L VAR
- Size : 1.125"
- 완료일정 : 2025.09

MFS series

- 사양 : 40 SLPM
- Materials : SUS316L, SUS316L VAR
- Size : 1/4"
- 완료일정 : 2025.09