TKSCT

Ultra-high purity in-line

Gas Filters

TKSCT Gas Filter Series

Hastelloy Gas Filter

Stainless Steel Gas Filter

PTFE Gas Filter

IGS Gas Filter

TKSCT corporation
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TKSCT corporation

Ultra-high purity in-line Gas Filter

INDEX

Ultra-high purity in-line **Gas filter**

Hastelloy Gas Filter

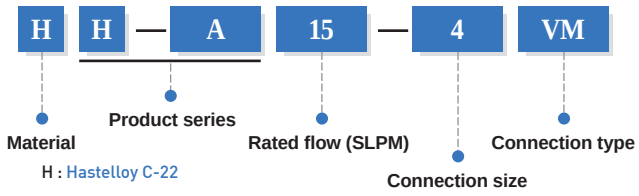
HH-A Series

- Ultra-high purity in-line gas filter
- All Hastelloy constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections

Product Features

- Wide range flow rate from 15 to 300 SLPM
- Corrosion resistant Hastelloy body with excellent performance for either inert or corrosive gas applications
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing, cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

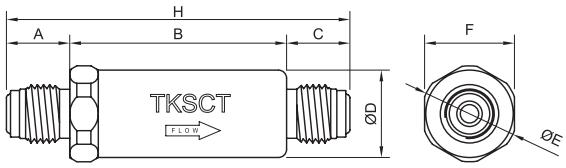


Size		Connection	
4	1/4″	VM	MFS male type
6	3/8″	SW	Lok type
8	1/2″		

■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	15 SLPM	
	60 SLPM	
	120 SLPM	
	200 SLPM	
	300 SLPM	
Materials	Filter element	Hastelloy C-276
	Electropolished housing	Hastelloy C-22
Operating conditions	Maximum inlet pressure	21 MPa (210kgf/cm²) at 20 °C
	Maximum differential pressure	15 MPa (153kgf/cm²) at 20 °C
	Maximum operating temperature	460 °C (Inert gas)
Helium leak rating	1×10^{-9} atm · cc / sec	
Surface finish interior	≤ Ra 5μin	

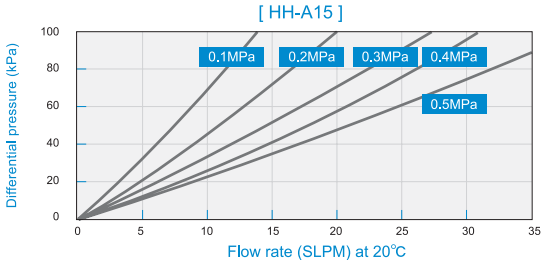
■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	E/mm	F/mm	H/mm
HH-A15-4VM	15.5	53	15.5	27	30	27	84
HH-A15-4SW	10	53	10	27	30	27	73
HH-A60-4VM	15.5	53	15.5	27	30	27	84
HH-A60-4SW	10	53	10	27	30	27	73
HH-A60-6(8)VM	19	53	19	27	30	27	91
HH-A120-4VM	15.5	96	15.5	29	33	30	127
HH-A120-4SW	10	96	10	29	33	30	116
HH-A120-6(8)VM	19	96	19	29	33	30	134
HH-A120-6(8)SW	12	96	12	29	33	30	120
HH-A200-4VM	15.5	98	15.5	35	39	35	129
HH-A200-4SW	10	98	10	35	39	35	118
HH-A200-6(8)VM	19	98	19	35	39	35	136
HH-A200-6(8)SW	12	98	12	35	39	35	122
HH-A300-4VM	15.5	98	15.5	35	39	35	129
HH-A300-4SW	10	98	10	35	39	35	118
HH-A300-6(8)VM	19	98	19	35	39	35	136
HH-A300-6(8)SW	12	98	12	35	39	35	122

■ Performance Data

[HH-A15]



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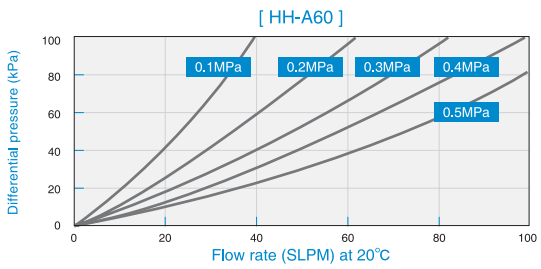

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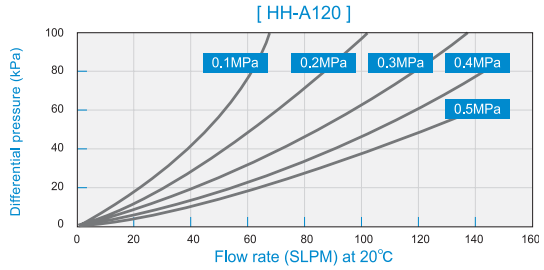

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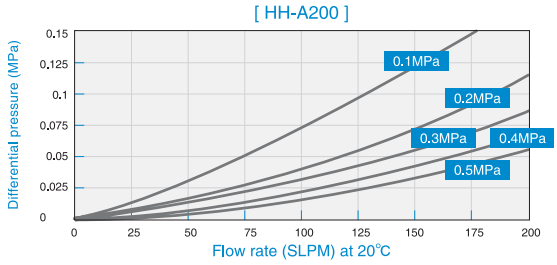

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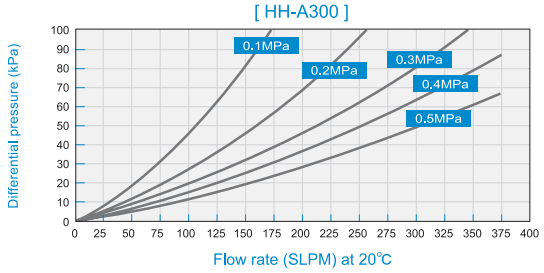


Hastelloy Gas Filter

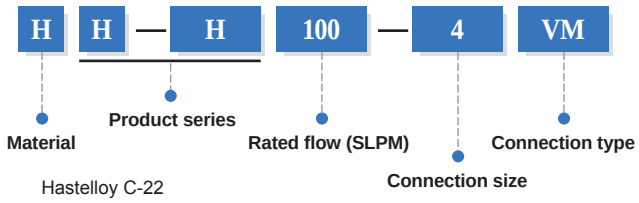
HH-H Series

- Ultra-high purity in-line high flow gas filter
- All Hastelloy constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections

Product Features

- Wide range flow rate from 100 to 800 SLPM
- Corrosion resistant Hastelloy body with excellent performance for either inert or corrosive gas applications
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing,cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

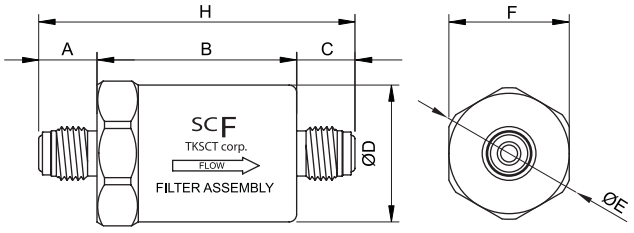


Size		Connection	
4	1/4″	VM	MFS male type
6	3/8″	SW	Lok type
8	1/2″		

■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	100 SLPM (MAX 150SLPM)	
	150 SLPM (MAX 200SLPM)	
	600 SLPM (MAX 800SLPM)	
Materials	Filter element	Hastelloy C-276
	Electropolished housing	Hastelloy C-22
Operating conditions	Maximum inlet pressure	12 MPa (122kgf/cm²) at 20 °C
	Maximum differential pressure	10 MPa (101kgf/cm²) at 20 °C
	Maximum operating temperature	460 °C (Inert gas)
Helium leak rating	1×10^{-9} atm cc/sec	
Surface finish interior	≤ Ra 5μin	

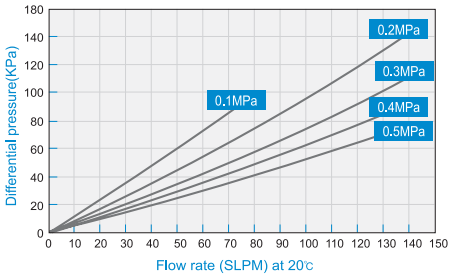
■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	E/mm	F/mm	H/mm
HH-H100-4VM	15.5	53	15.5	32	35	32	84
HH-H100-4SW	10	53	10	32	35	32	73
HH-H100-6(8)VM	19	53	19	32	35	32	91
HH-H100-6(8)SW	12	53	12	32	35	32	77
HH-H150-4VM	15.5	53	15.5	32	35	32	84
HH-H150-4SW	10	53	10	32	35	32	73
HH-H150-6(8)VM	19	53	19	32	35	32	91
HH-H150-6(8)SW	12	53	12	32	35	32	77
HH-H600-4VM	15.5	96	15.5	32	35	32	127
HH-H600-4SW	10	96	10	32	35	32	116
HH-H600-6(8)VM	19	96	19	32	35	32	134
HH-H600-6(8)SW	12	96	12	32	35	32	120

■ Performance Data

[HH-H100]



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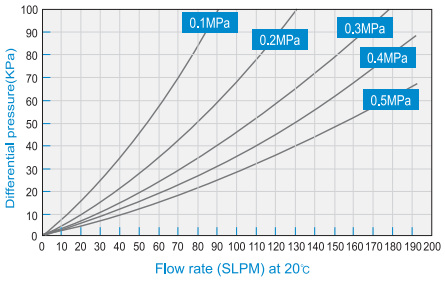

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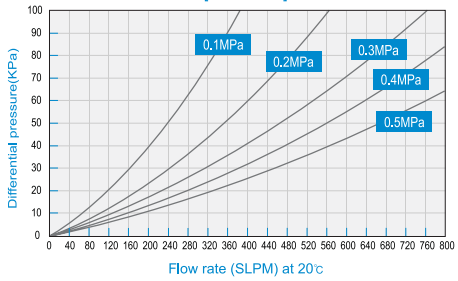


Stainless Steel Gas Filter

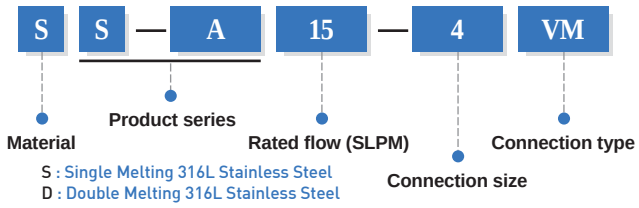
SS-A Series

- Ultra-high purity in-line gas filter
- All 316L stainless steel constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections

Product Features

- Wide range flow rate from 15 to 300 SLPM
- Excellent compatibility with most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing, cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

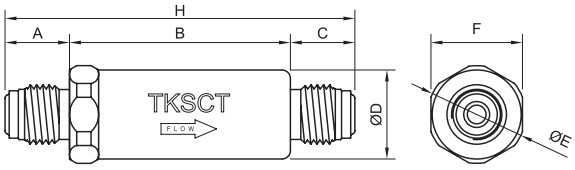


Size		Connection	
4	1/4″	VM	MFS male type
6	3/8″	SW	Lok type
8	1/2″		

■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	15 SLPM	
	60 SLPM	
	120 SLPM	
	200 SLPM	
	300 SLPM	
Materials	Filter element	316L Stainless steel
	Electropolished housing	SM/DM 316L Stainless steel
Element Operating conditions	Maximum inlet pressure	21 MPa (210kgf/cm²) at 20 °C
	Maximum differential pressure	15 MPa (153kgf/cm²) at 20 °C
	Maximum operating temperature	460 °C (Inert gas)
Helium leak rating	1 x 10^{-9} atm cc/sec	
Surface finish interior	≤ Ra 5μin	

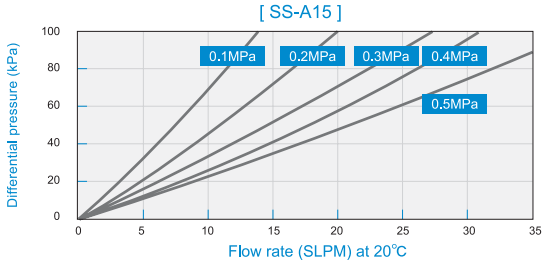
■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	E/mm	F/mm	H/mm
SS-A15-4VM	15.5	53	15.5	27	30	27	84
SS-A15-4SW	10	53	10	27	30	27	73
SS-A60-4VM	15.5	53	15.5	27	30	27	84
SS-A60-4SW	10	53	10	27	30	27	73
SS-A60-6(8)VM	19	53	19	27	30	27	91
SS-A120-4VM	15.5	96	15.5	29	33	30	127
SS-A120-4SW	10	96	10	29	33	30	116
SS-A120-6(8)VM	19	96	19	29	33	30	134
SS-A120-6(8)SW	12	96	12	29	33	30	120
SS-A200-4VM	15.5	98	15.5	35	39	35	129
SS-A200-4SW	10	98	10	35	39	35	118
SS-A200-6(8)VM	19	98	19	35	39	35	136
SS-A200-6(8)SW	12	98	12	35	39	35	122
SS-A300-4VM	15.5	98	15.5	35	39	35	129
SS-A300-4SW	10	98	10	35	39	35	118
SS-A300-6(8)VM	19	98	19	35	39	35	136
SS-A300-6(8)SW	12	98	12	35	39	35	122

■ Performance Data

[SS-A15]



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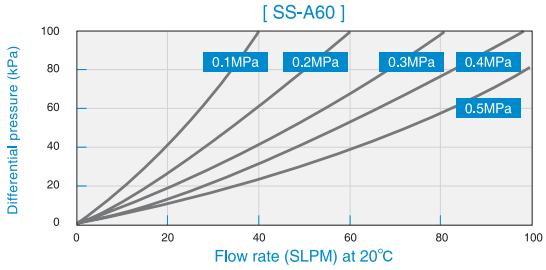

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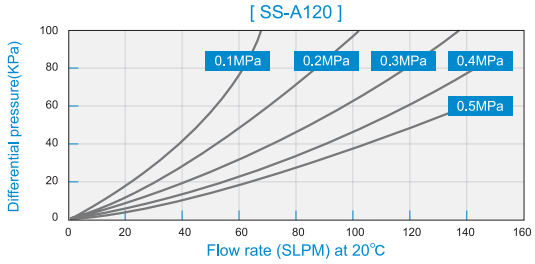

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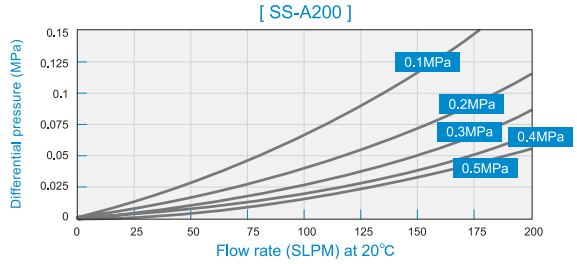

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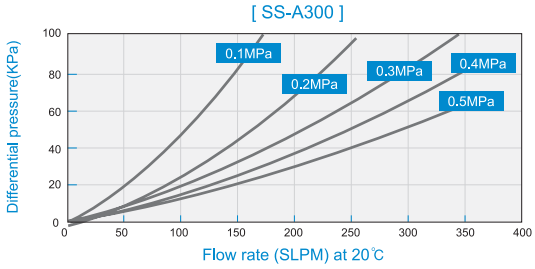


Stainless Steel Gas Filter

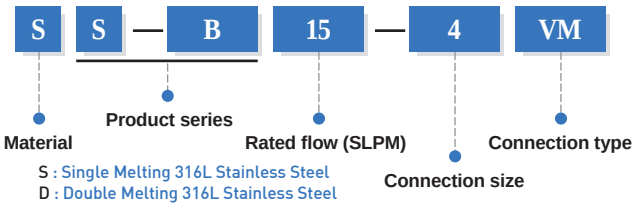
SS-B Series

- Ultra-high purity in-line gas filter
- All 316L stainless steel constructions
- High temperature applications
- Compact size and variable end connections

Product Features

- Excellent compatibility with most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing, cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

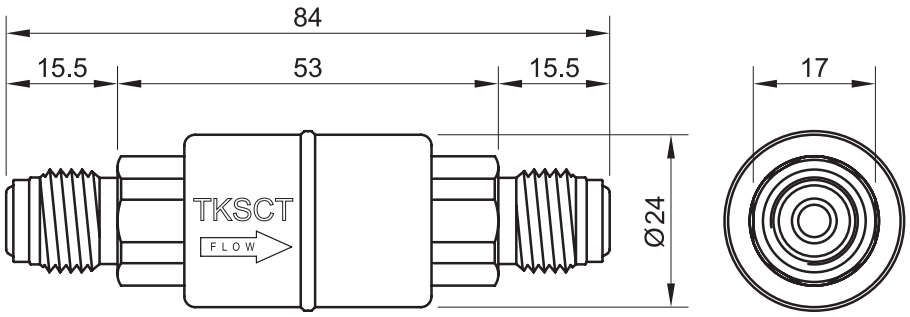


Size		Connection	
4	1/4″	VM	MFS male type

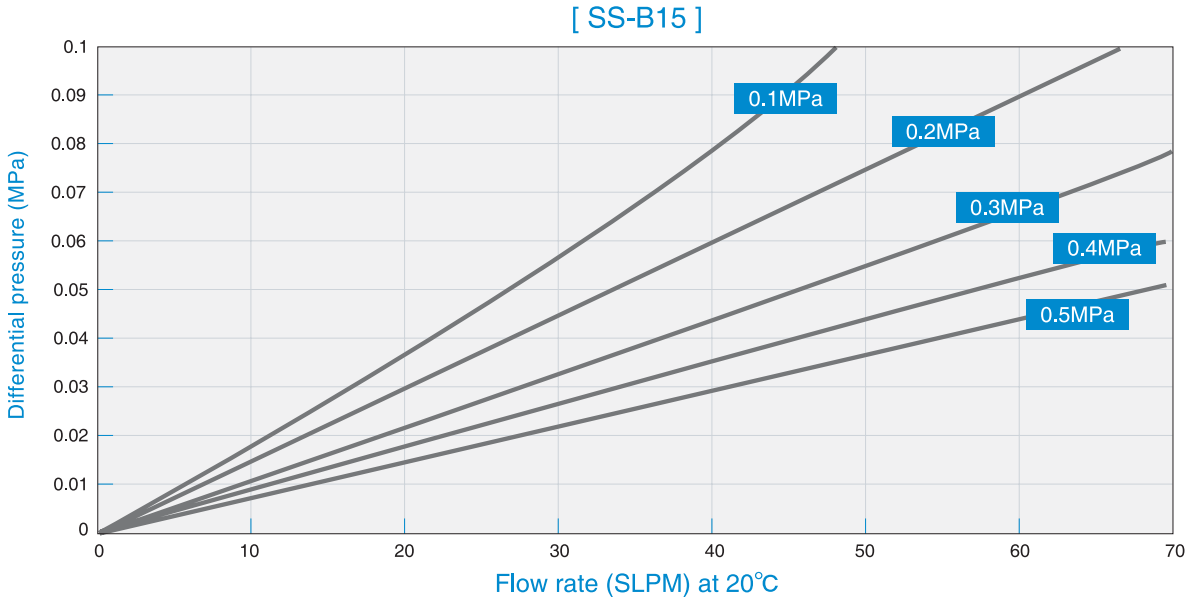
■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	15 SLPM	
Materials	Filter element	316L Stainless steel
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm²) at 20 °C
	Maximum differential pressure	0.7 MPa (7kgf/cm²) at 20 °C
	Maximum operating temperature	460 °C (Inert gas)
Helium leak rating	1×10^{-9} atm cc/sec	
Surface finish interior	≤ Ra 5μin	

■ Dimensions



■ Performance Data



Stainless Steel Gas Filter

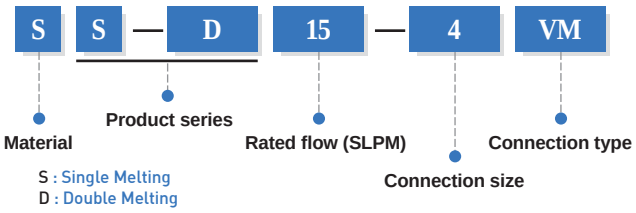
SS-D Series

- Ultra-high purity in-line gas filter
- All 316L stainless steel constructions
- High temperature applications
- Compact size and variable end connections

Product Features

- Excellent compatibility with most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing,cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

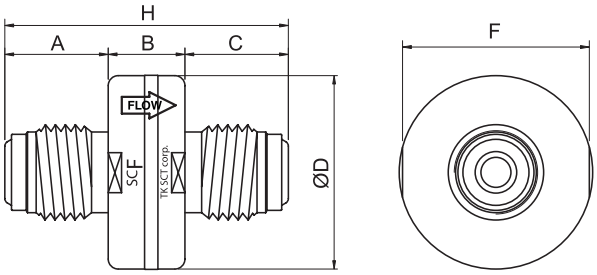


Size		Connection	
4	1/4″	VM	MFS male type
		SW	Lok type

■ Specifications

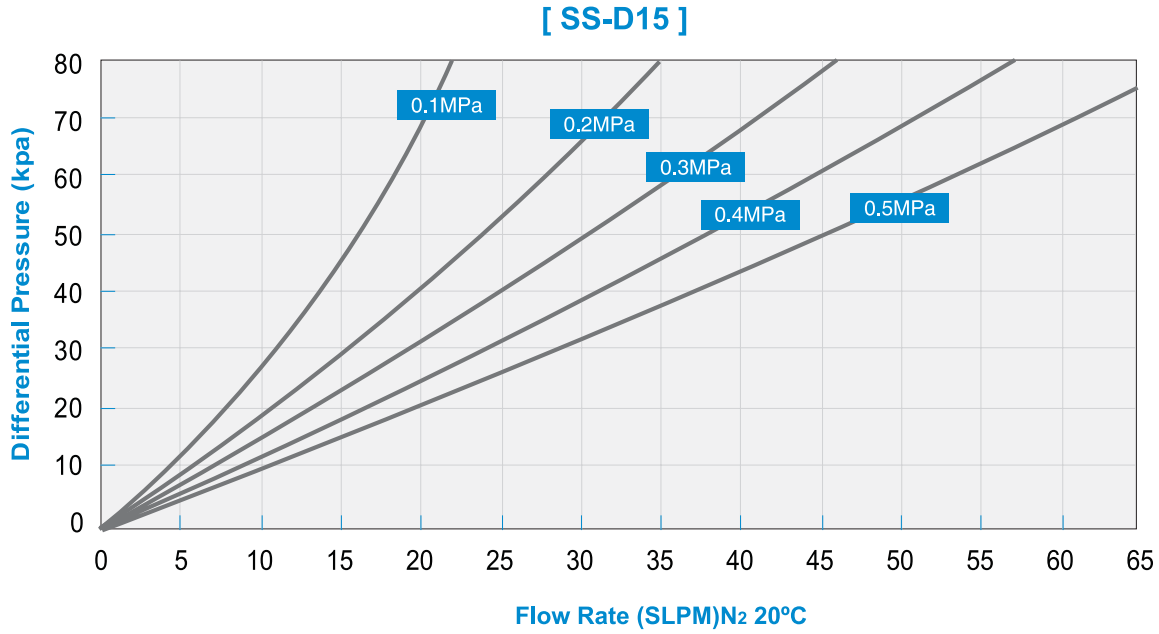
Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	15 SLPM	
Materials	Filter element	316L Stainless steel
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm²) at 20 °C
	Maximum differential pressure	0.7 MPa (7kgf/cm²) at 20 °C
	Maximum operating temperature	460 °C (Inert gas)
Helium leak rating	1 x 10^{-9} atm cc/sec	
Surface finish interior	≤ Ra 5μin	

■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	F/mm	H/mm
SS-D15-4VM	15.5	11	15.5	29	28	42
SS-D15-4SW	10	11	10	29	28	31

■ Performance Data



Stainless Steel Gas Filter

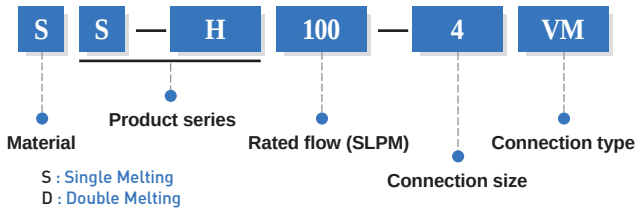
SS-H Series

- Ultra-high purity in-line high flow gas filter
- All 316L stainless steel constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections

Product Features

- Wide range flow rate from100 to 800 SLPM
- Excellent compatibility with most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing,cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

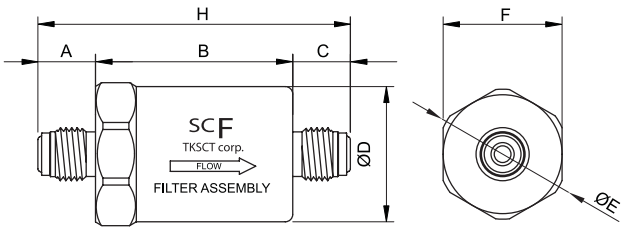


Size		Connection	
4	1/4″	VM	MFS male type
6	3/8″	SW	Lok type
8	1/2″		

■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	100 SLPM (MAX 150SLPM)	
	150 SLPM (MAX 200SLPM)	
	600 SLPM (MAX 800SLPM)	
Materials	Filter element	316L Stainless steel
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	12 MPa (122kgf/cm²) at 20°C
	Maximum differential pressure	10 MPa (101kgf/cm²) at 20°C
	Maximum operating temperature	460°C (Inert gas)
Helium leak rating	1 x 10^{-9} atm cc/sec	
Surface finish interior	≤ Ra 5μin	

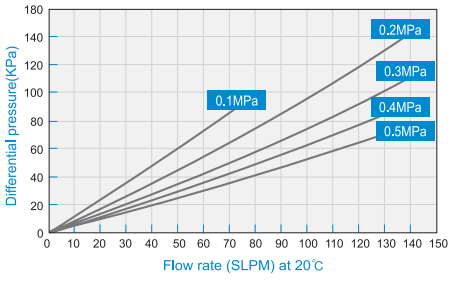
■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	E/mm	F/mm	H/mm
SS-H100-4VM	15.5	53	15.5	32	35	32	84
SS-H100-4SW	10	53	10	32	35	32	73
SS-H100-6(8)VM	19	53	19	32	35	32	91
SS-H100-6(8)SW	12	53	12	32	35	32	77
SS-H150-4VM	15.5	53	15.5	32	35	32	84
SS-H150-4SW	10	53	10	32	35	32	73
SS-H150-6(8)VM	19	53	19	32	35	32	91
SS-H150-6(8)SW	12	53	12	32	35	32	77
SS-H600-4VM	15.5	96	15.5	32	35	32	127
SS-H600-4SW	10	96	10	32	35	32	116
SS-H600-6(8)VM	19	96	19	32	35	32	134
SS-H600-6(8)SW	12	96	12	32	35	32	120

■ Performance Data

[SS-H100]



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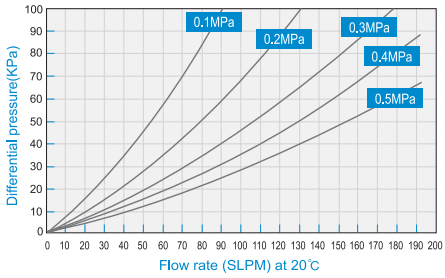
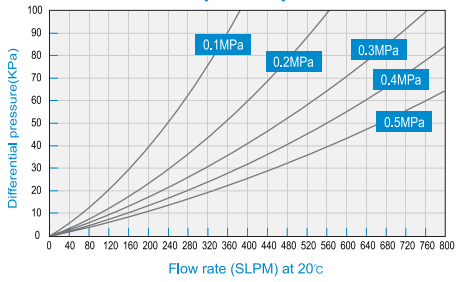


[SS-H600]



PTFE Gas Filter

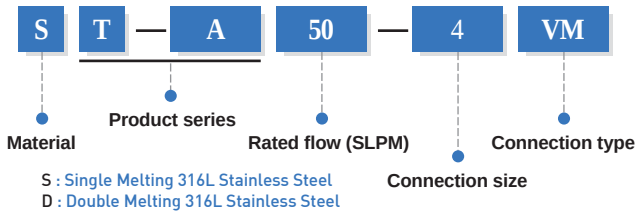
ST-A Series

- Ultra-high purity in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing

Product Features

- PTFE element with superior corrosion resistance and excellent compatibility for most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing, cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

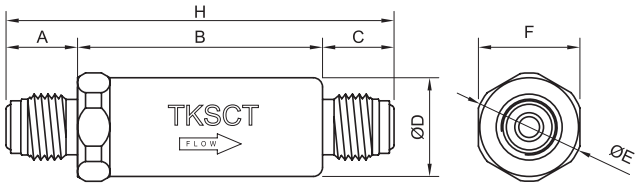


Size		Connection	
4	1/4″	VM	MFS male type
6	3/8″	SW	Lok type
8	1/2″		

■ Specifications

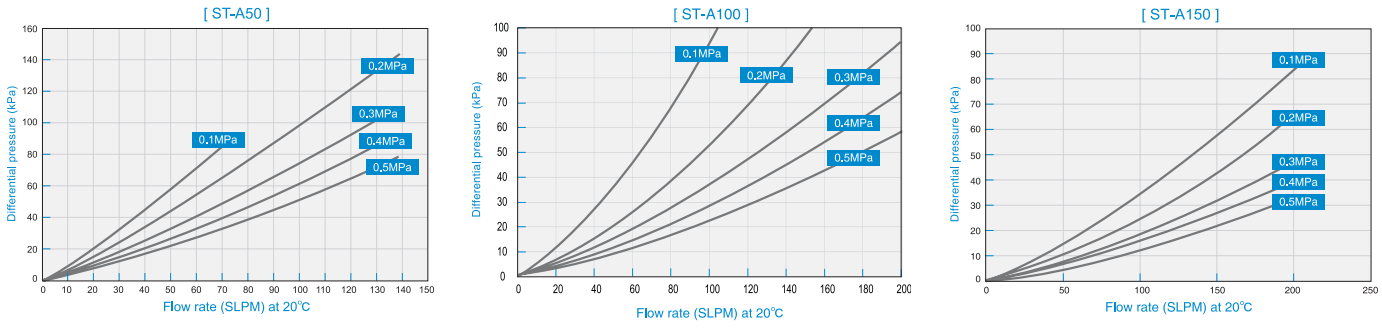
Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	50 SLPM	
	100 SLPM	
	150 SLPM	
Materials	Filter element / Support / O-ring	PTFE / PFA / PTFE
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm²) at 20 °C
	Maximum differential pressure	0.4 MPa (4.2kgf/cm²) at 20 °C
	Maximum operating temperature	120 °C (Inert gas)
Helium leak rating	1 x 10^{-9} atm · cc / sec	
Surface finish interior	≤ Ra 5μin	

■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	E/mm	F/mm	H/mm
ST-A50-4VM	15.5	53	15.5	21	23.5	22	84
ST-A50-4SW	10	53	10	21	23.5	22	73
ST-A100-4VM	15.5	96	15.5	26	30	27	127
ST-A100-4SW	10	96	10	26	30	27	116
ST-A100-6(8)VM	19	96	19	26	30	27	134
ST-A100-6(8)SW	12	96	12	26	30	27	120
ST-A150-4VM	15.5	96	15.5	26	30	27	127
ST-A150-4SW	10	96	10	26	30	27	116
ST-A150-6(8)VM	19	96	19	26	30	27	134
ST-A150-6(8)SW	12	96	12	26	30	27	120

■ Performance Data



PTFE Gas Filter

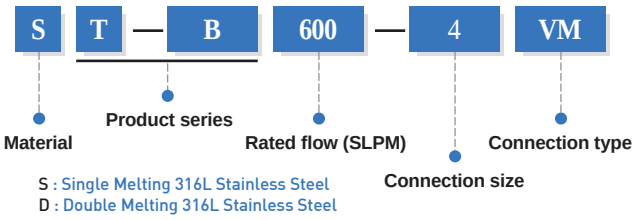
ST-B Series

- Ultra-high purity in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing

Product Features

- PTFE element with superior corrosion resistance and excellent compatibility for most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing, cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

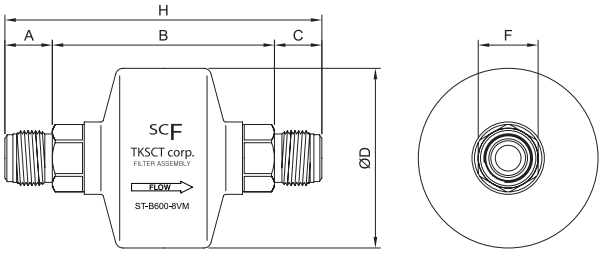


Size		Connection	
4	1/4″	VM	MFS male type
6	3/8″	SW	Lok type
8	1/2″		

■ Specifications

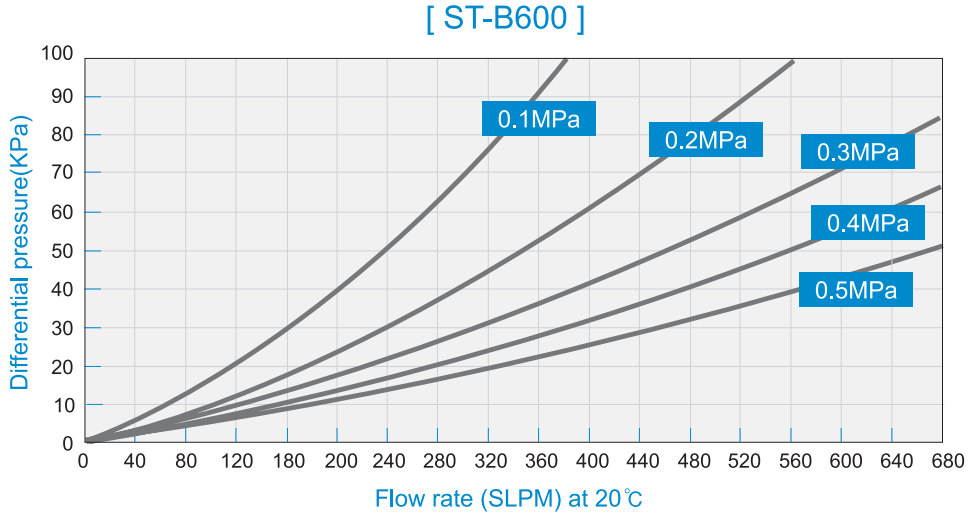
Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	600 SLPM (MAX 1000SLPM)	
Materials	Filter element / Support / O-ring	PTFE / PFA &ECTFE / VITON
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm²) at 20 °C
	Maximum differential pressure	0.4 MPa (4.2kgf/cm²) at 20 °C
	Maximum operating temperature	120 °C (Inert gas)
Helium leak rating	1 x 10^{-9} atm · cc / sec	
Surface finish interior	≤ Ra 5μin	

■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	F/mm	H/mm
ST-B600-4VM	15.5	96	15.5	76	24	127
ST-B600-4SW	10	93	10	76	24	113
ST-B600-6(8)VM	19	89	19	76	24	127
ST-B600-6(8)SW	12	89	12	76	24	113

■ Performance Data



PTFE Gas Filter

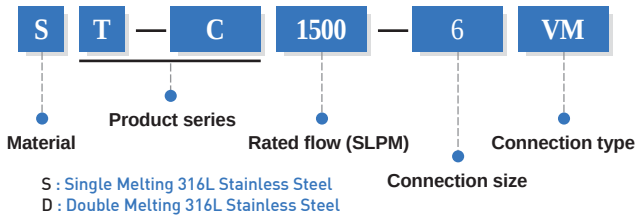
ST-C Series

- Ultra-high purity in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing

Product Features

- PTFE element with superior corrosion resistance and excellent compatibility for most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing, cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

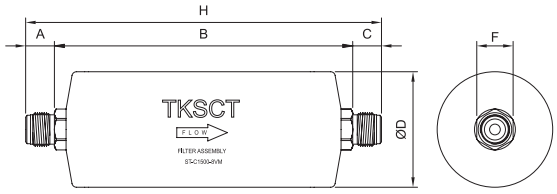


Size		Connection	
6	3/8″	VM	MFS male type
8	1/2″	TW	Lok type
		A	Tube size

Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	1500 SLPM, 2000 SLPM, 2500 SLPM, 3500 SLPM, 7500 SLPM	
Materials	Filter element / Support / O-ring	PTFE / PP / VITON
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm²) at 20 °C
	Maximum differential pressure	0.4 MPa (4.2kgf/cm²) at 20 °C
	Maximum operating temperature	100 °C (Inert gas)
Helium leak rating	1 x 10^{-9} atm · cc / sec	
Surface finish interior	≤ Ra 5μin	

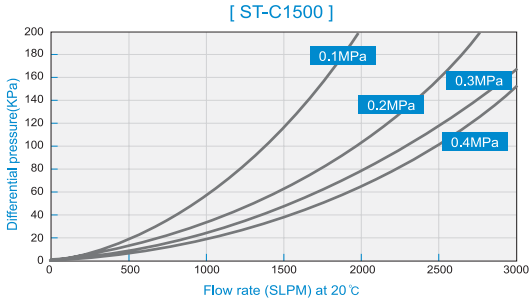
■ Dimensions



Part No.	A/mm	B/mm	C/mm	D/mm	F/mm	H/mm
ST-C1500-6(8)VM	19	198	19	76	24	236
ST-C1500-8TW	56.2	183	56.2	76	-	295
ST-C1500-15A	49	182	49	76.6	-	280
ST-C2000-15A	49	182	49	76.2	-	280
ST-C2500-20A	71	300	71	89.1	-	442
ST-C3500-25A	70	309	70	89.1	-	448
ST-C7500-40A	70	550	70	89.1	-	689

■ Performance Data

[ST-C1500]



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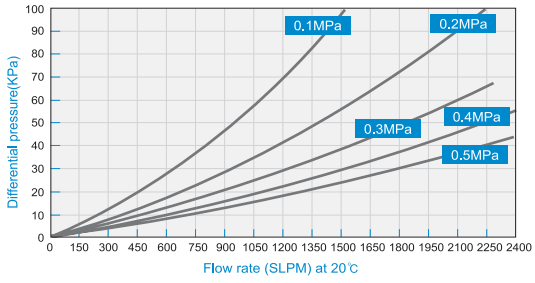

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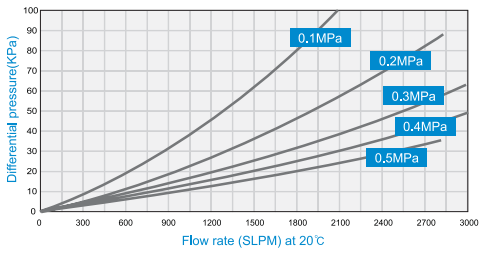

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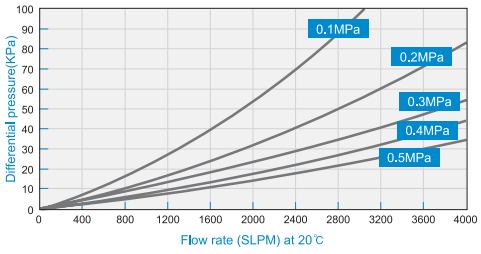

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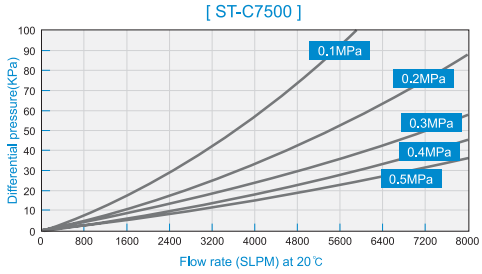


PTFE Gas Filter

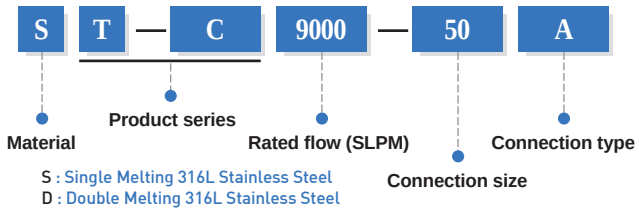
ST-C Multi Series

- Ultra-high purity Multi gas filter
- All fluoropolymer filter element
- Electropolished 316 stainless steel housing

Product Features

- 10″~30″ PTFE element with superior corrosion resistance and excellent compatibility for most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing,cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

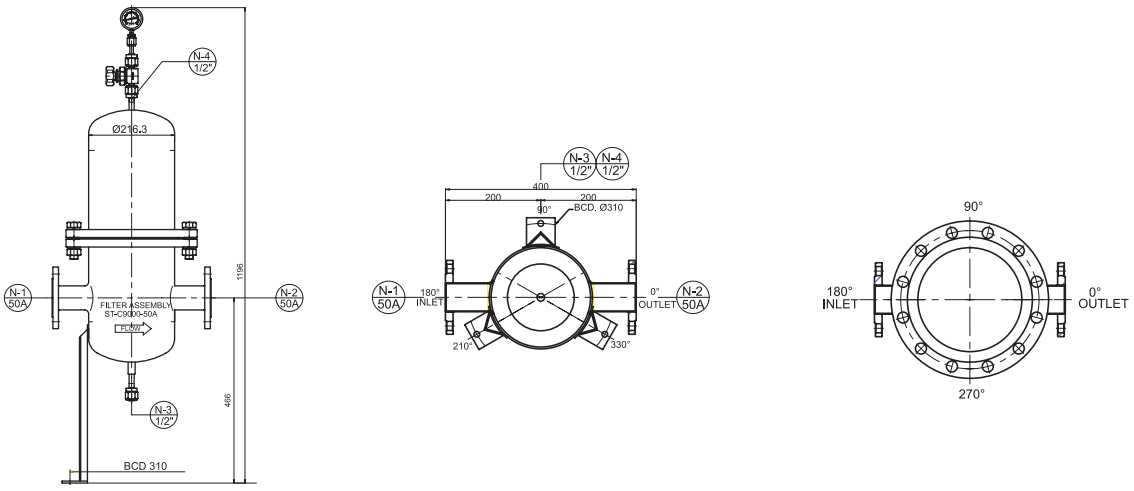


Size	Connection	
50	A	FLANGE Type

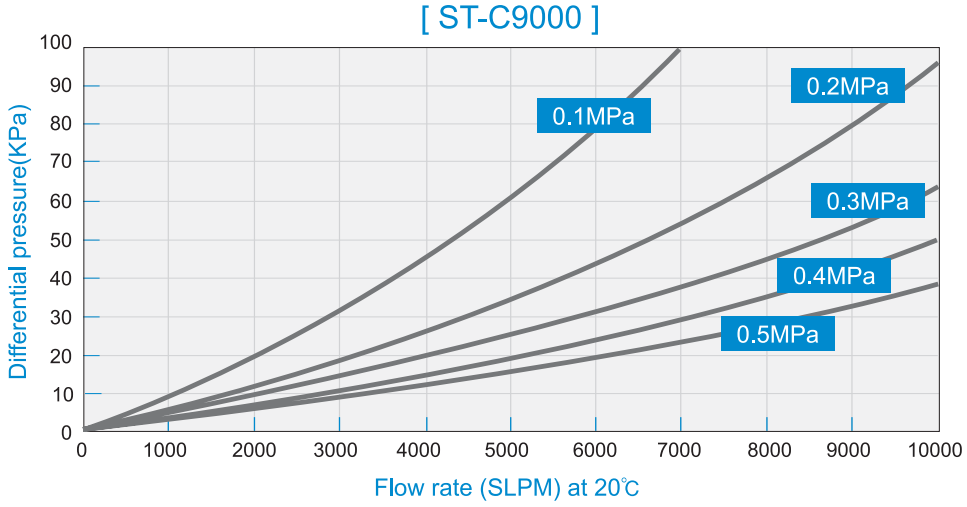
■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	9000 SLPM	
Materials	Filter element / Support / O-ring	PTFE / PP / VITON
	Housing	316 Stainless steel
Operating conditions	Maximum inlet pressure	1.66MPa (17kgf/cm²) at 20°C
	Maximum differential pressure	0.6 MPa (6kgf/cm²) at 20°C
	Maximum operating temperature	100°C (Inert gas)
Helium leak rating	1×10^{-5} atm cc/sec	
Surface finish interior	≤ Ra 5μin	

■ Dimensions



■ Performance Data



PTFE Gas Filter

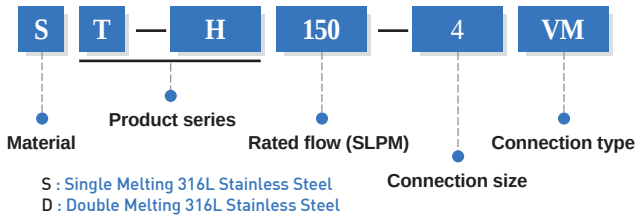
ST-H MAX Series

- Ultra-high purity max in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing

Product Features

- PTFE element with superior corrosion resistance and excellent compatibility for most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with Low pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing, cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

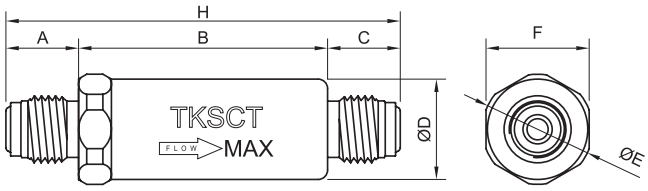


Size		Connection	
4	1/4″	VM	MFS male type
6	3/8″	SW	Lok type
8	1/2″		

■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	150 SLPM (Max 200 SLPM)	
	300 SLPM (Max 400 SLPM)	
Materials	Filter element / Support / O-ring	PTFE / PFA / PTFE
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm²) at 20 °C
	Maximum differential pressure	0.4 MPa (4.2kgf/cm²) at 20 °C
	Maximum operating temperature	120 °C (Inert gas)
Helium leak rating	1 x 10^{-9} atm · cc / sec	
Surface finish interior	≤ Ra 5μin	

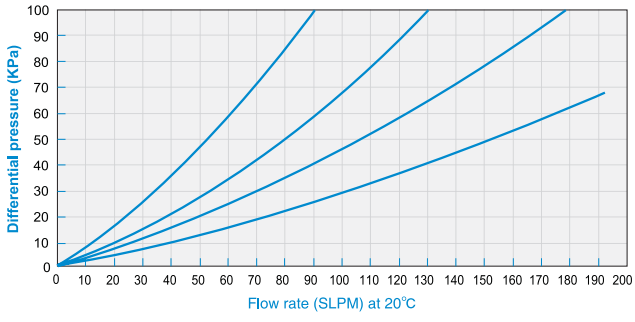
■ Dimensions



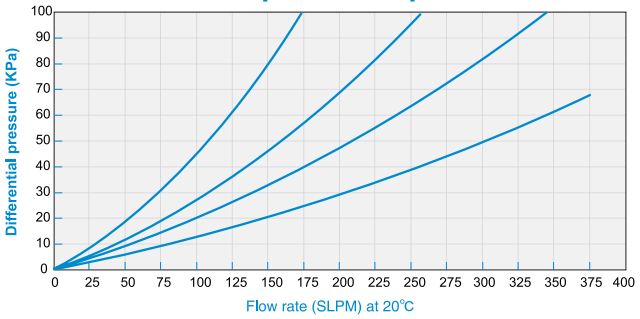
Part No.	A/mm	B/mm	C/mm	D/mm	E/mm	F/mm	H/mm
ST-H150-4VM	15.5	53	15.5	21	23.5	22	84
ST-H150-4SW	10	53	10	21	23.5	22	73
ST-H300-6(8)VM	19	96	19	26	30	27	134
ST-H300-6(8)SW	12	96	12	26	30	27	120

■ Performance Data

[ST-H MAX150]



[ST-H MAX300]



IGS Gas Filter

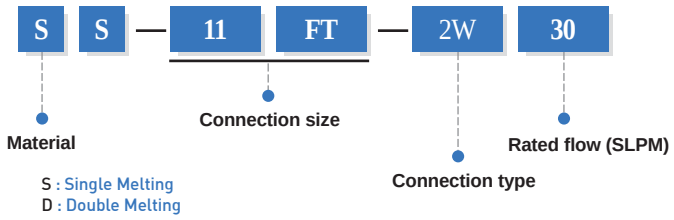
Metal Series

- Ultra-high purity Metal Mini gas filter
- All 316L stainless steel constructions
- High temperature and dynamic pressure applications
- Compact size and high reliability on shock or vibration

Product Features

- Wide range flow rate from30 to 120 SLPM
- Excellent compatibility with most high purity semiconductor process gases
- 3 Nanometer particle filtering capability keeps up high flow efficiency with minimum pressure drop
- 5Ra electro-polished surface prevents internal contaminations
- Baked with hot nitrogen after DI water cleaning to meet semiconductor process standards
- Class 100 manufacturing,cleaning and packaging environment
- 100% helium leak tested

■ Ordering Information

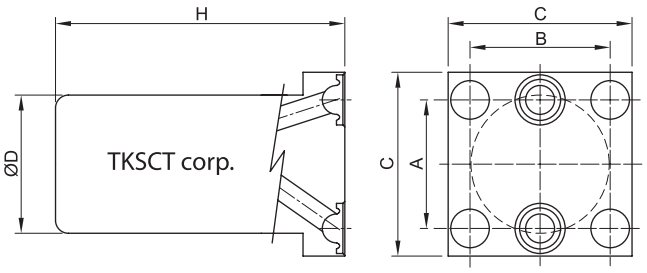


Size		Connection	
11	1.125″	W	W-Seal
15	1.5″	C	C-Seal

■ Specifications

Removal rating	≥ 0.0025 ㎛	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 ㎛	
Rated flow @ 10^9	30 SLPM	
	60 SLPM	
	120 SLPM	
Materials	Filter element	316L Stainless steel, Hastelloy C276
	Electropolished housing	SM/DM 316L Stainless steel, Hastelloy C22
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm²) at 20°C
	Maximum differential pressure	0.7 MPa (7kgf/cm²) at 20°C
	Maximum operating temperature	460°C (Inert gas)
Helium leak rating	1 x 10^{-9} atm cc/sec	
Surface finish interior	≤ Ra 5μin	

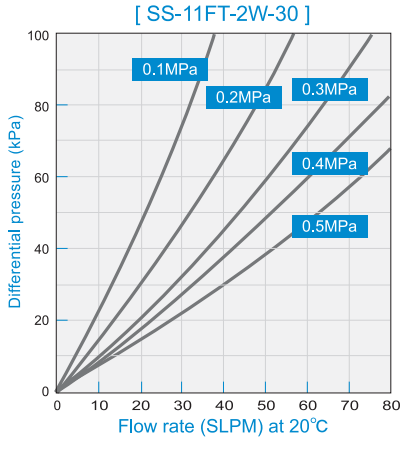
■ Dimensions



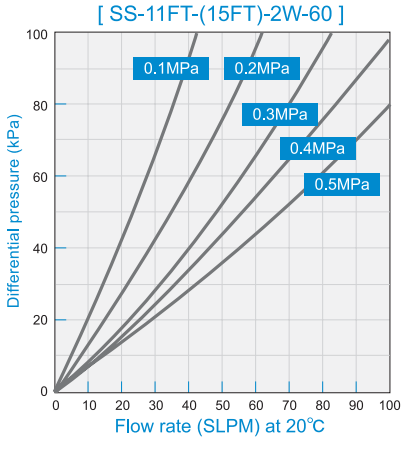
Size	Seal Type	Part Number	A/mm	B/mm	C/mm	D/mm	H/mm
1.125″	W-Seal	SS-11FT-2W-30	20	21.8	28.6	21.5	45
		SS-11FT-2W-60	20	21.8	28.6	21.5	58
	C-Seal	SS-11FT-2C-30	21.8	21.8	28.6	21.5	45
		SS-11FT-2C-60	21.8	21.8	28.6	21.5	58
1.5″	W-Seal	SS-15FT-2W-60	26	30	39	27.5	62
		SS-15FT-2W-120	26	30	39	27.5	96
	C-Seal	SS-15FT-2C-60	30.2	30.2	39	27.5	62
		SS-15FT-2C-120	30.2	30.2	39	27.5	96

■ Performance Data

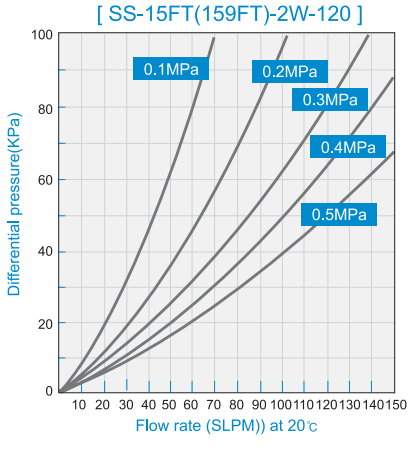
[SS-11FT-2W-30]



[SS-11FT-(15FT)-2W-60]



[SS-15FT(159FT)-2W-120]



Element Selection Guide

No.	GAS CHEMICAL FORMULA		ELEMENT MATERIAL		
			SUS316L	HC-276	PTFE
1	Argon	Ar	●	●	●
2	Arsine	AsH3	●	x	●
3	Boron Trichloride	BCl3	x	●	●
4	Boron Trifluoride	BF3	x	●	●
5	Diborane	B2H6	●	●	●
6	Carbon Dioxide	CO2	●	●	●
7	Carbon Monoxide	CO	●	●	●
8	Chlorine	Cl2	●	●	●
9	Halocarbon 13	CClF3	●	●	●
10	Halocarbon 14 Tetrafluoromethane	CF4	●	●	●
11	Halocarbon 23 Trifluoromethane	CHF3	●	●	●
12	Halocarbon 115	C2ClF5	●	●	●
13	Halocarbon 116 Hexafluoroethane	C2F6	●	●	●
14	Halocarbon 23 Trifluoromethane	CH3F	●	●	●
15	Halocarbon 318 Octafluorocyclobutane	C4F8	●	●	●
16	Halocarbon 218 Perfluoropropane	C3F8	●	●	●
17	Trimethylamine	(CH3)3N	●	●	●
18	Germane	GeH4	●	●	●
19	Helium	He	●	●	●
20	Hydrogen	H2	●	●	●
21	Hydrogen Bromide	HBr	x	●	●
22	Hydrogen Chloride	HCl	x	●	●
23	Hydrogen Fluoride	HF	x	●	●
24	Hydrogen Selenide	H2Se	●	●	●
25	Hydrogen Sulfide	H2S	●	●	●
26	Krypton	Kr	●	●	●
27	Ammonia	NH3	●	●	●
28	Neon	Ne	●	●	●
29	Nitrogen	N2	●	●	●
30	Nitrogen Trifuoride	NF3	●	●	●
31	Nitrous Oxide	N2O	●	●	●
32	Oxygen	O2	●	●	●
33	Ozone	O3	x	x	●
34	Phosphine	PH3	●	●	●
35	Phosphorous Trifluoride	PF3	x	●	●
36	Silane	SiH4	●	●	●
37	Silicon Tetrachloride	SiCl4	x	●	●
38	Silicon Tetrafluoride	SiF4	x	●	●
39	Dichlorosilane	SiH2Cl2	x	●	●
40	Halocarbon 116 Hexafluoroethane	SF6	●	●	●
41	Trichlorosilane	SiHCl3	●	●	●
42	Trimethylsilane	SiH(CH3)3	●	●	●
43	Tungsten Hexafluoride	WF6	x	●	●
44	Xenon	Xe	●	●	●

● - Recommended, ▲- Limited, X - Not Recommended

Specification

Item	Sample Q'ty	METHOD	CRITERIA
Raw Material & Element Powder	5PC/Lot*1)	(1) Mill Certificate (2) Visual (3) Dimension : Vernier Caliper Tape measure	- Confirm chemical contents and Mechanical properties in mill certificate. - No harmful damage on surface. - Meet to specification for O.D. and length. - Confirm Powder certificate.
Element	5PC/Lot	(1)Visual (2)Dimension: Vernier Caliper	- No harmful damage on surface. - Meet to specification for O.D. and length.
Visual	100%	External: Visual Inspection	- No burr, rust, discoloration, mechanical damage, and contamination
Dimensional Inspection	KS A ISO 2859	(1)O.D.: Vernier Caliper (2)Length: Vernier Caliper	- Designated dimension shall be met to required specification
Inner Surface Roughness	1PC / LOT*3)	(1)Cut Off Length : 0.25mm (2)Measuring Length: 1.25mm	- Ra ≤5 μin
Welding	100%	External: Visual, Magnifier	- Maintain even width and height for welding bead - No Pit or crack is allowed - No discoloration
Particle	100%	(1)Test Fluid: Dry Air (2)Pressure : 4 ~ 6 kgf/cm^2 (3)Flow rate : 35 ~ 40ℓ/min (4)Test time : 1min	- No count 0.0025㎛ and larger
He Leak	100%	Equipment: He Leak Detector	- 1 x 10-9 atm•cc/sec

Note : *1) Inspection Lot : Each heat number
*2) AQL 2.5, Ⅱ,1time sampling, normal inspection
*3) Inspection Lot: Each Traveller

Selection criteria

1	Particle Retention Efficiency
2	Particle Shedding
3	Removal Rating
4	Pressure Drop & Inlet Pressure
5	Flow Rate
6	Max. Operating Temperature
7	Gas Compatibility & Resistance
8	Connection Type
8	Pollutants & Contaminants
10	Cleanliness

TKSCT
Ultra-high purity in-line Gas filter

■ Production Flow

CAREFULLY SELECTED MATERIALS

Selecting and standardizing a highly clean material reduced non-metalic inclusions and outgases.
Further, production of VAR material that is highly resistant to corrosion and Hastelloy® C-22™ material are even made possible.

HIGH PRECISION MACHINING PROCESS

Using fully automatic, high precision, high-speed CNC Machining center and lathe, a precision machining process is established. With high precision locating, automatic dimensional calculation and automatic compensation, an unattended, labor-reduced production process is made possible.

ULTRA-HIGH CLEANING PROCESS

Using TKSCT unique technology for super cleanness, passivation treatment by means of special electropolishing, etc. is applied to the smooth machined surface before polishing process. This enables to form a highly corrosion-resistant and super clean surface structure.

CLEAN WELDING

Clean welding method is made available by using a high speed, full-automatic orbital welding machine. Using a sealed inner and outer manostat gauge in the clean room, inner pressure is controlled with hyper pure inert-gas so that the totally clean welding technology can fully contribute to realization of the flat bead condition, etc..

ULTRA PRECISION CLEANING

An automatic processing line including ultra pure hot water with resistivity of more than 17MΩcm has been established in the clean room. The best possible cleaning condition is achieved here prior to the assembly.

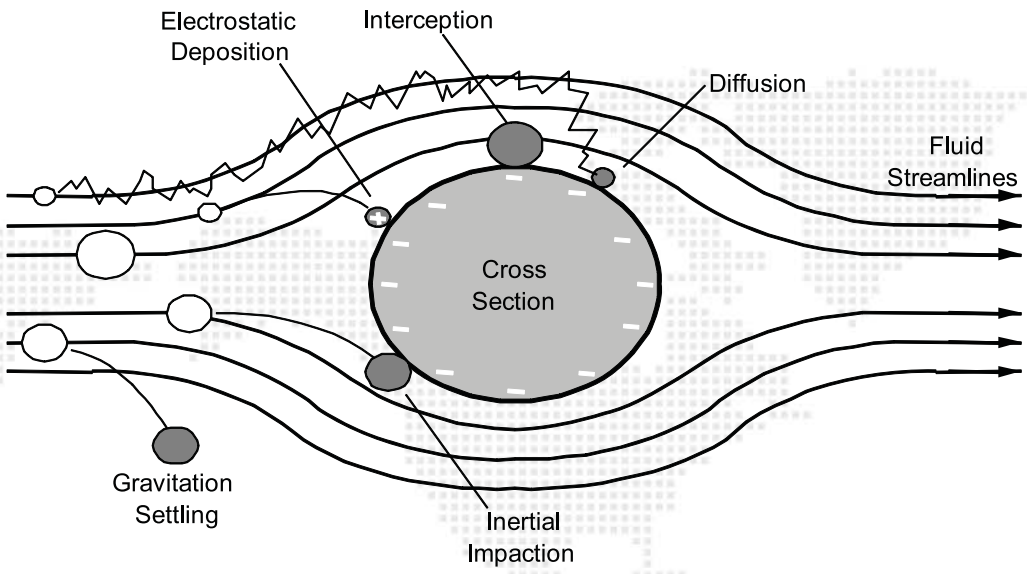
ASSEMBLY IN THE CLEAN ROOM

Production staffs fully acquainted with the special assembling method are dedicated to the assembly process in the certified clean room.

CLEAN PACKING

Packing is carried out at the certified clean room with inner vacuum seal method.
In this way, mixing-in of foreign particles at the time of packing is extensively reduced to its minimum.

■ Filtration Mechanism



■ Business scope

- GASES & CHEMICALS
- PHARMACEUTICAL
- FAB INSTALLATION
- SEMI-CONDUCTOR & TFT-LCD
- CLEAN ROOM
- LAB & RESEARCH
- GENERAL INDUSTRY
- ENERGY AND ENVIRONMENT

Ultra-high purity in-line Gas Filter

Challenging the most critical industry requirement
with the most reliable and cost-effective solution is our business.

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