

TKSCT

Ultra-high purity in-line

Gas Filters



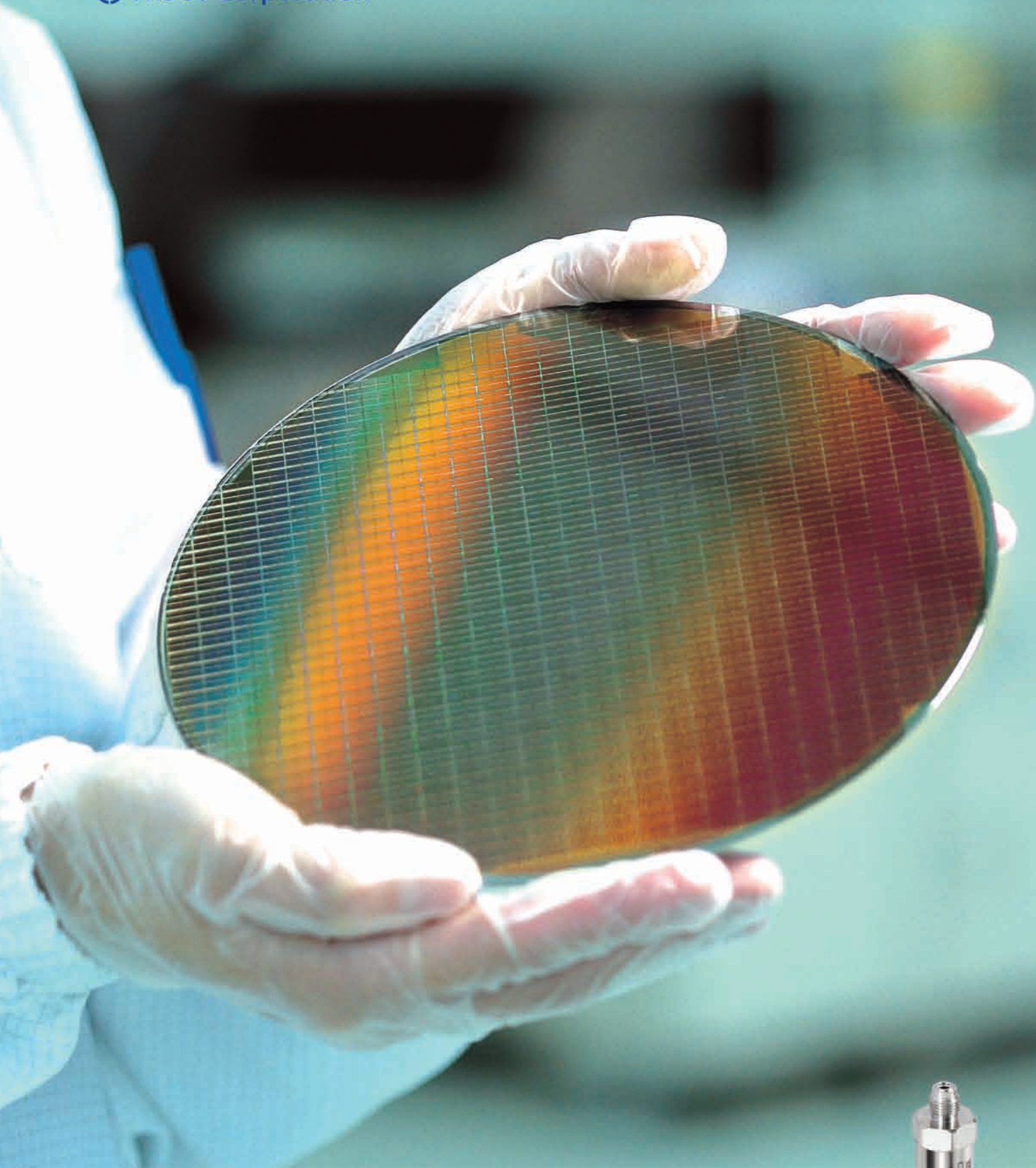
TKSCT Gas Filter Series

Hastelloy Gas Filter

Stainless Steel Gas Filter

PTFE Gas Filter

IGS Gas Filter



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





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

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Hastelloy Gas Filter

HH-A Series

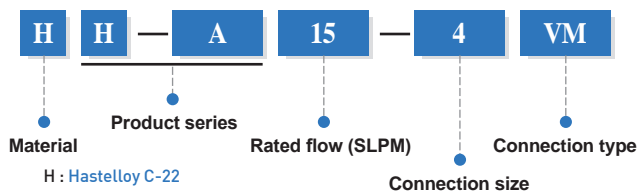
- Ultra-high purity in-line gas filter
- All Hastelloy constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections



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

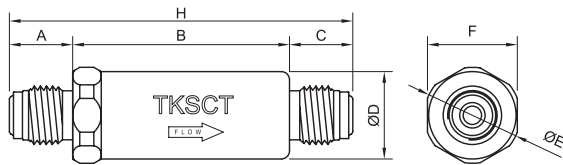


Size		Connection	
4	1/4"	VM	MFS male type
6	3/8"	SW	Lok type
8	1/2"		

Specifications

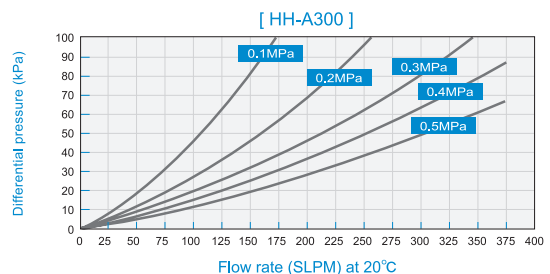
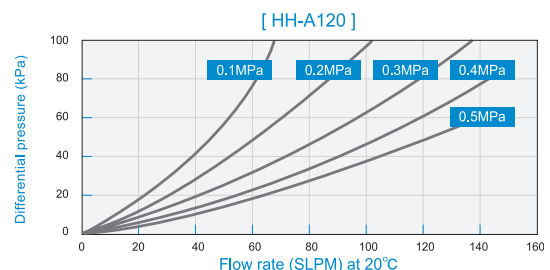
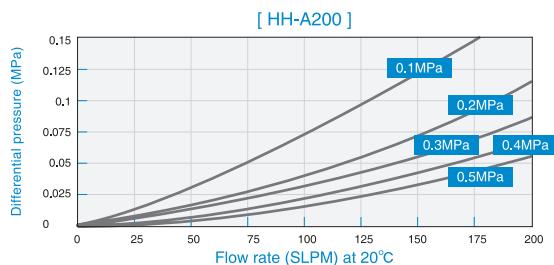
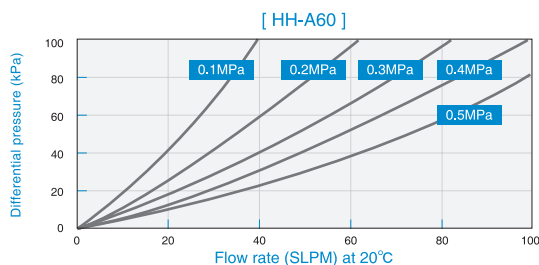
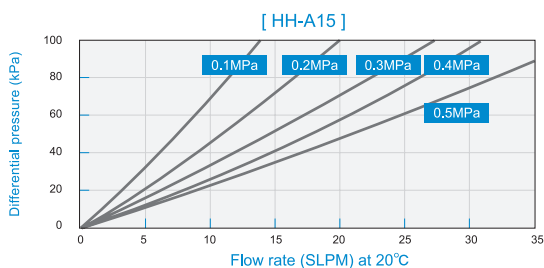
Removal rating	≥ 0.0025 μm	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 μm	
Rated flow @ 10 ⁹	15 SLPM	
	60 SLPM	
	120 SLPM	
	200 SLPM	
	300 SLPM	
Materials	Filter element	Hastelloy C-276
	Electropolished housing	Hastelloy C-22
Operating conditions	Maximum inlet pressure	21 MPa (210kgf/cm ²) at 20 °C
	Maximum differential pressure	15 MPa (153kgf/cm ²) at 20 °C
	Maximum operating temperature	460 °C (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
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



Hastelloy Gas Filter

HH-H Series

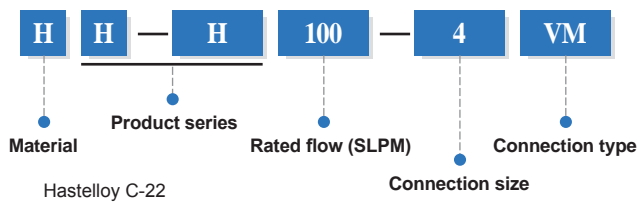
- Ultra-high purity in-line high flow gas filter
- All Hastelloy constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections



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

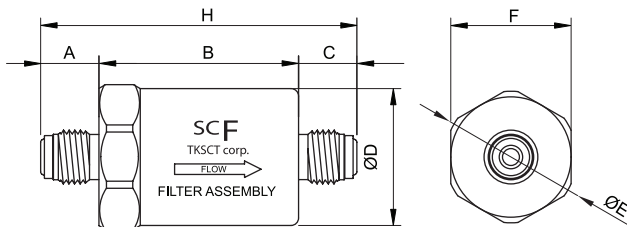


Size		Connection	
4	1/4"	VM	MFS male type
6	3/8"	SW	Lok type
8	1/2"		

Specifications

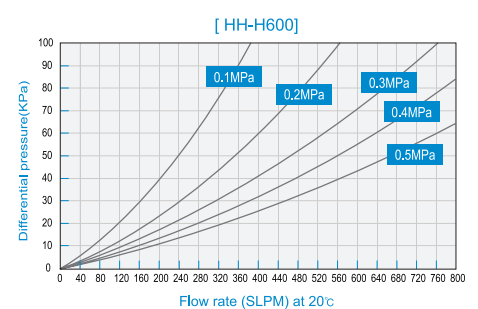
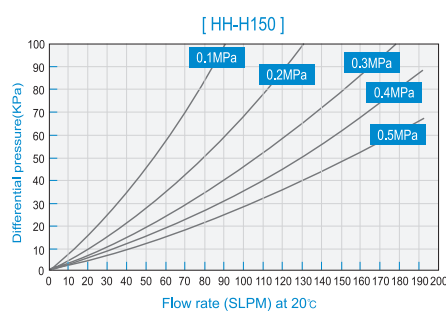
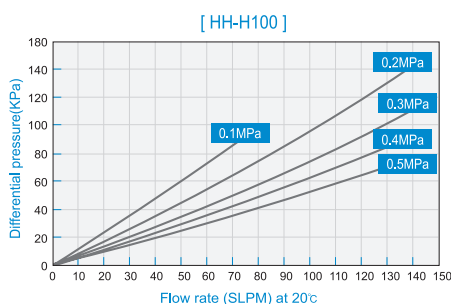
Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to $0.0025 \mu\text{m}$	
Rated flow @ 10^9	100 SLPM (MAX 150SLPM)	
	150 SLPM (MAX 200SLPM)	
	600 SLPM (MAX 800SLPM)	
Materials	Filter element	Hastelloy C-276
	Electropolished housing	Hastelloy C-22
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 (Inert gas)
Helium leak rating	1×10^{-9} atm cc/sec	
Surface finish interior	$\leq \text{Ra } 5\mu\text{m}$	

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



Stainless Steel Gas Filter

SS-A Series

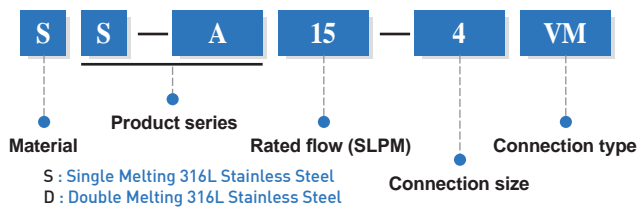
- Ultra-high purity in-line gas filter
- All 316L stainless steel constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections



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

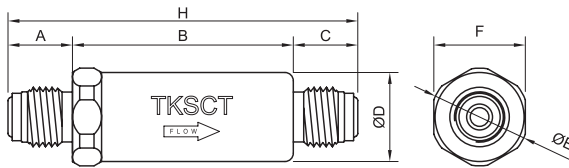


Size		Connection	
4	1/4"	VM	MFS male type
6	3/8"	SW	Lok type
8	1/2"		

Specifications

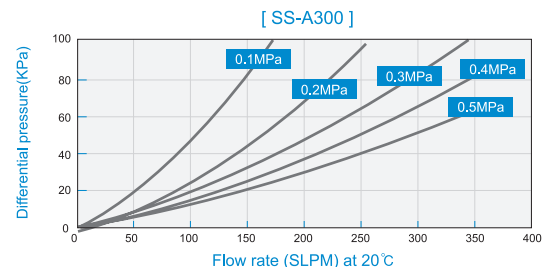
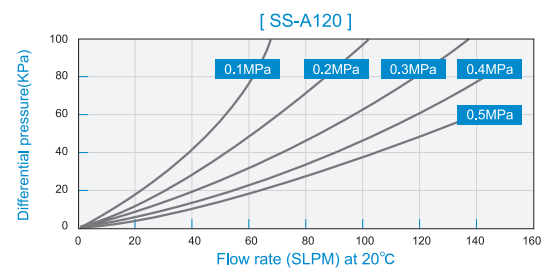
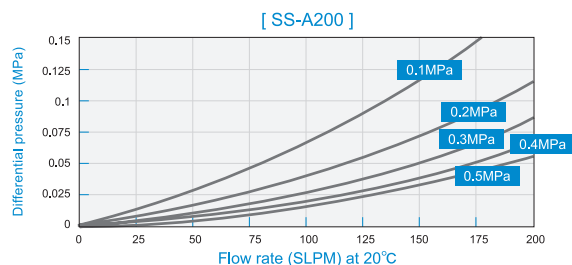
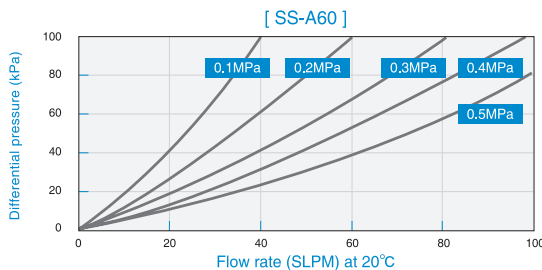
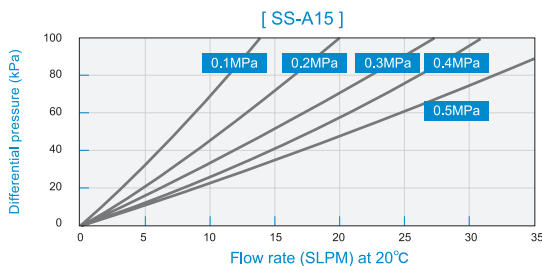
Removal rating	≥ 0.0025 μm	
Retention	Greater than 99.999999% Removal of all particles down to 0.0025 μm	
Rated flow @ 10 ⁹	15 SLPM	
	60 SLPM	
	120 SLPM	
	200 SLPM	
	300 SLPM	
Materials	Filter element	316L Stainless steel
	Electropolished housing	SM/DM 316L Stainless steel
Element Operating conditions	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 (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



Stainless Steel Gas Filter

SS-B Series

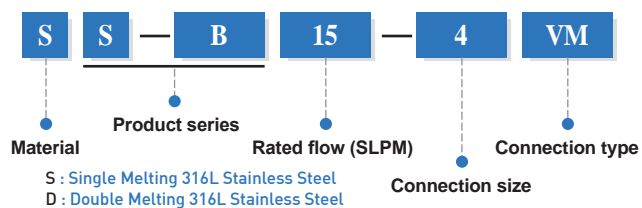
- Ultra-high purity in-line gas filter
- All 316L stainless steel constructions
- High temperature applications
- Compact size and variable end connections



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

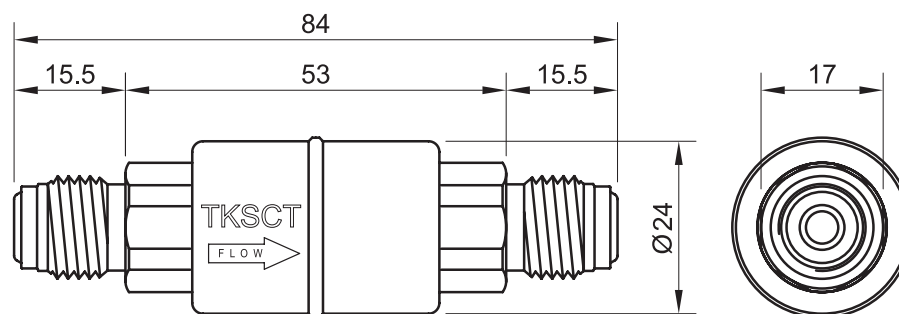


Size		Connection	
4	1/4"	VM	MFS male type

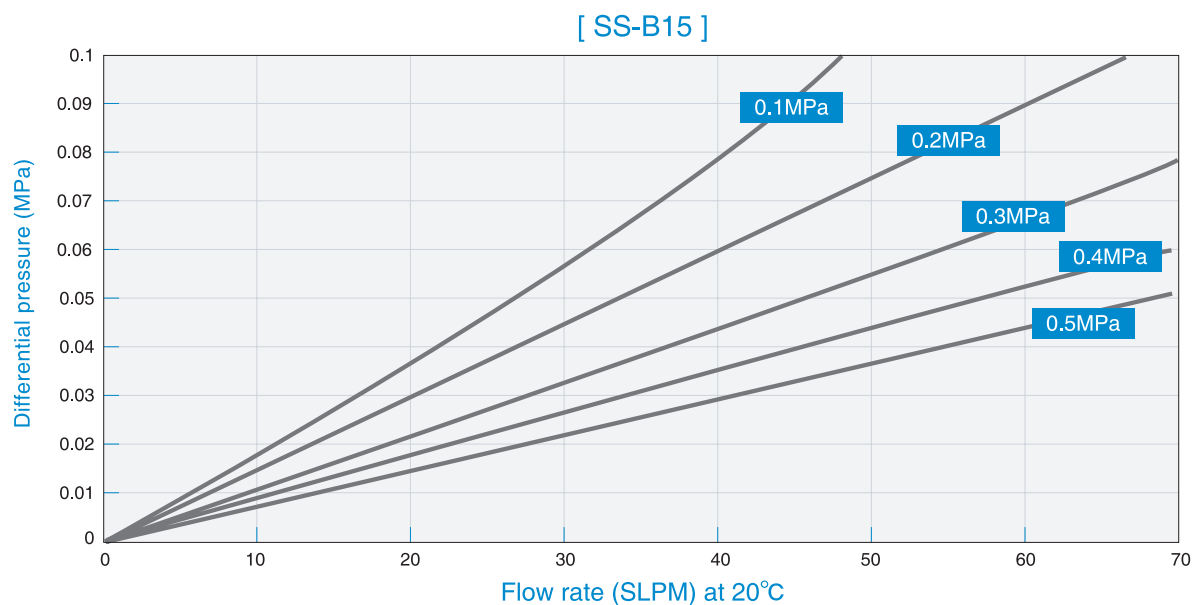
Specifications

Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.999999% Removal of all particles down to $0.0025 \mu\text{m}$	
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/cm ²) at 20 °C
	Maximum differential pressure	0.7 MPa (7kgf/cm ²) at 20 °C
	Maximum operating temperature	460 °C (Inert gas)
Helium leak rating	1×10^{-9} atm cc/sec	
Surface finish interior	$\leq \text{Ra } 5\mu\text{m}$	

Dimensions



Performance Data



Stainless Steel Gas Filter

SS-D Series

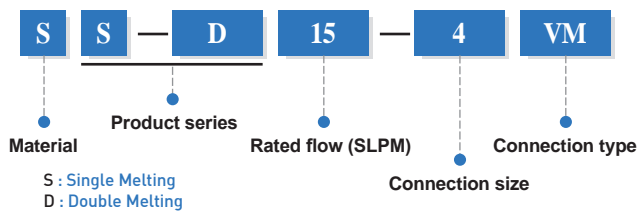
- Ultra-high purity in-line gas filter
- All 316L stainless steel constructions
- High temperature applications
- Compact size and variable end connections



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

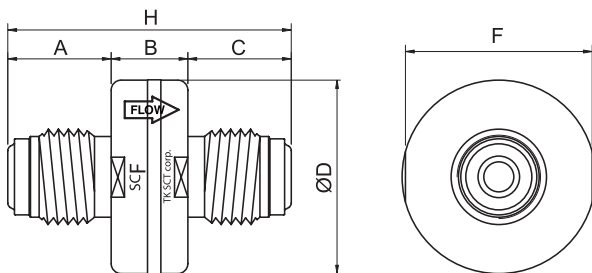


Size		Connection	
4	1/4"	VM	MFS male type
		SW	Lok type

Specifications

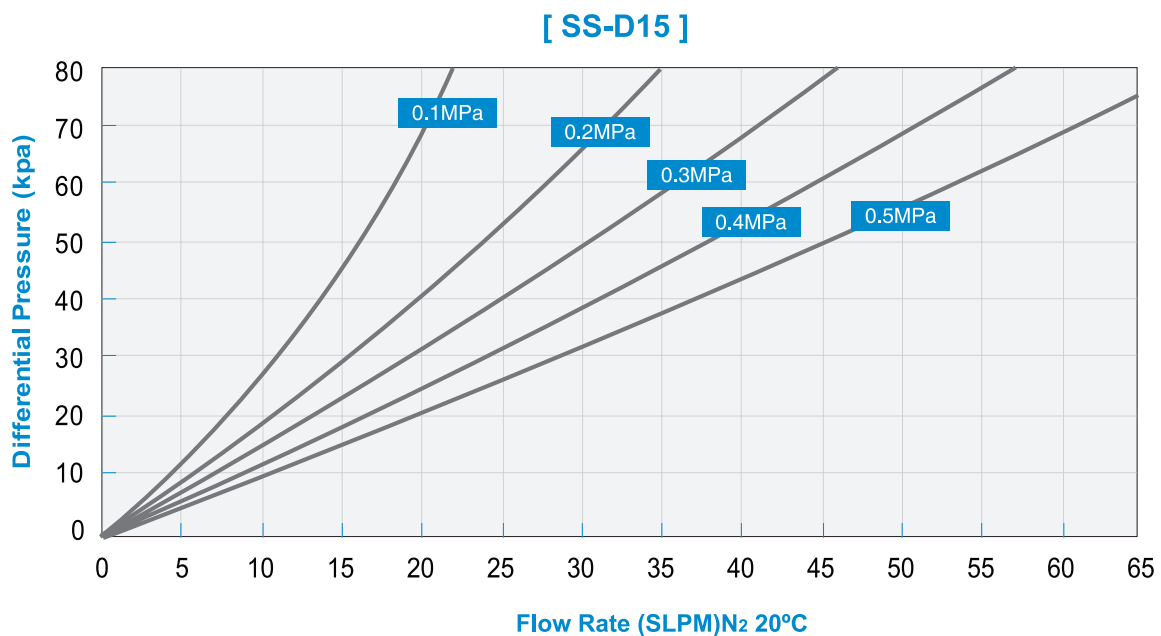
Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to $0.0025 \mu\text{m}$	
Rated flow @ 10^9	15 SLPM	
Materials	Filter element	316L Stainless steel
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm ²) at 20 °C
	Maximum differential pressure	0.7 MPa (7kgf/cm ²) at 20 °C
	Maximum operating temperature	460 °C (Inert gas)
Helium leak rating	1×10^{-9} atm cc/sec	
Surface finish interior	$\leq \text{Ra } 5\mu\text{in}$	

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

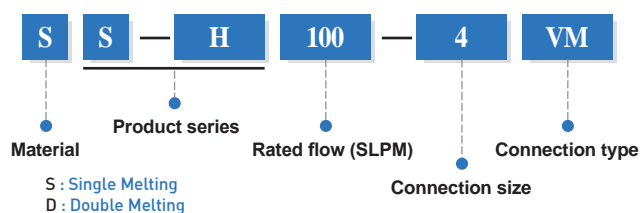
- Ultra-high purity in-line high flow gas filter
- All 316L stainless steel constructions
- High temperature and dynamic pressure applications
- Compact size and variable end connections



Product Features

- Wide range flow rate from 100 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

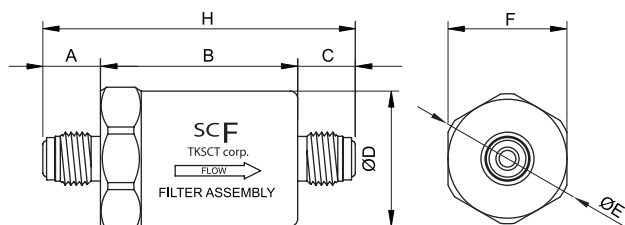


Size		Connection	
4	1/4"	VM	MFS male type
6	3/8"	SW	Lok type
8	1/2"		

Specifications

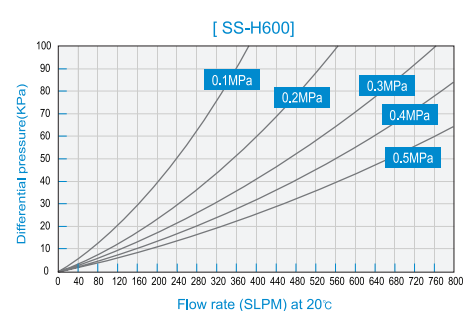
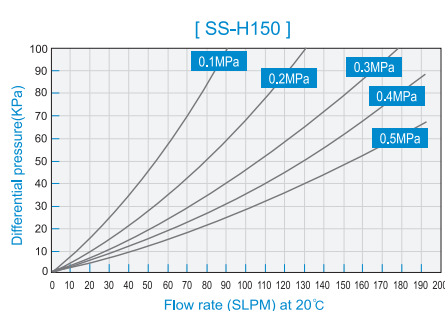
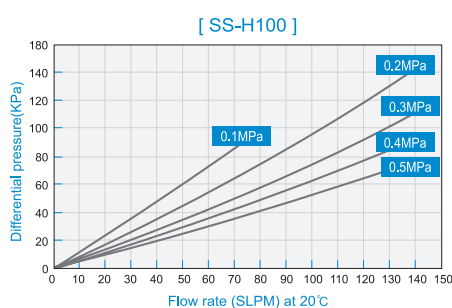
Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to $0.0025 \mu\text{m}$	
Rated flow @ 10^9	100 SLPM (MAX 150SLPM)	
	150 SLPM (MAX 200SLPM)	
	600 SLPM (MAX 800SLPM)	
Materials	Filter element	316L Stainless steel
	Electropolished housing	SM/DM 316L Stainless steel
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 (Inert gas)
Helium leak rating	1×10^{-9} atm cc/sec	
Surface finish interior	$\leq \text{Ra } 5\mu\text{m}$	

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



PTFE Gas Filter

ST-A Series

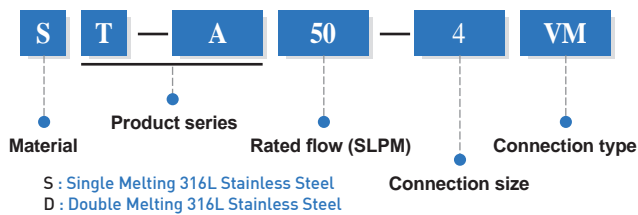
- Ultra-high purity in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing



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

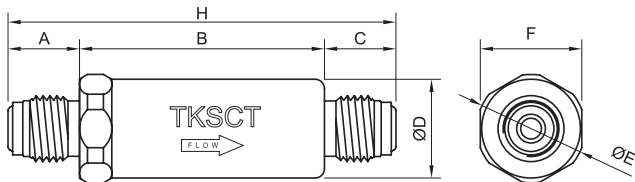


Size		Connection	
4	1/4"	VM	MFS male type
6	3/8"	SW	Lok type
8	1/2"		

Specifications

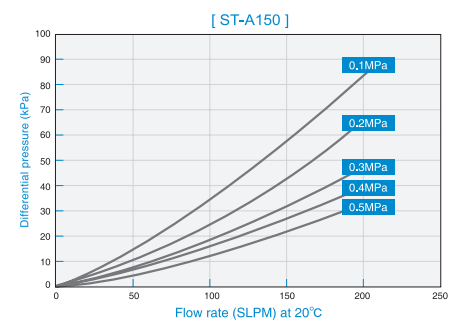
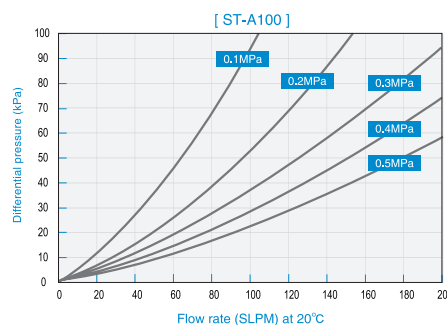
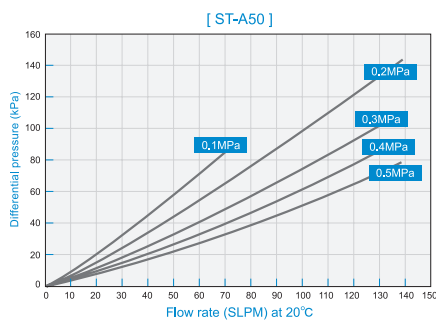
Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to $0.0025 \mu\text{m}$	
Rated flow @ 10^5	50 SLPM	
	100 SLPM	
	150 SLPM	
Materials	Filter element / Support / O-ring	PTFE / PFA / PTFE
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm ²) at 20 °C
	Maximum differential pressure	0.4 MPa (4.2kgf/cm ²) at 20 °C
	Maximum operating temperature	120 °C (Inert gas)
Helium leak rating	$1 \times 10^{-9} \text{ atm} \cdot \text{cc} / \text{sec}$	
Surface finish interior	$\leq \text{Ra } 5\mu\text{in}$	

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

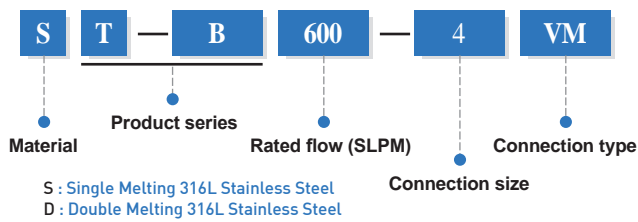
- Ultra-high purity in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing



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

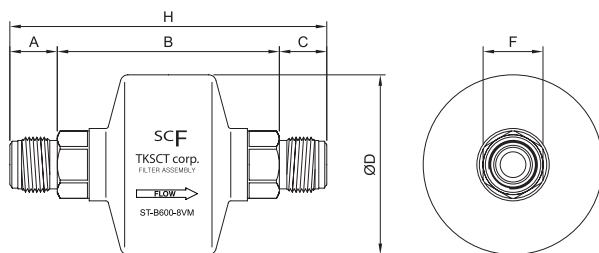


Size		Connection	
4	1/4"	VM	MFS male type
6	3/8"	SW	Lok type
8	1/2"		

Specifications

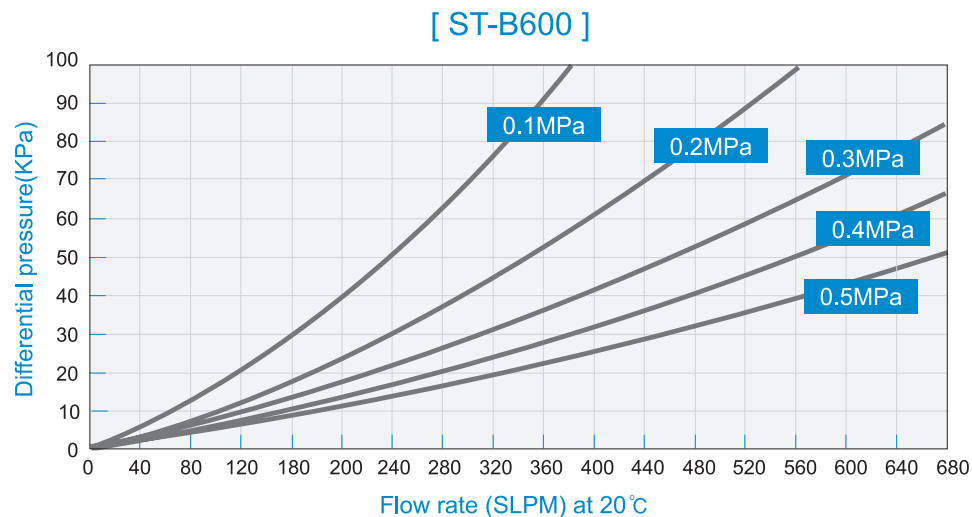
Removal rating	≥ 0.0025 μm	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 μm	
Rated flow @ 10 ⁹	600 SLPM (MAX 1000SLPM)	
Materials	Filter element / Support / O-ring	PTFE / PFA &ECTFE / VITON
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum 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

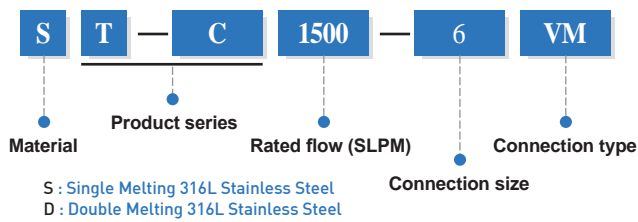
- Ultra-high purity in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing



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

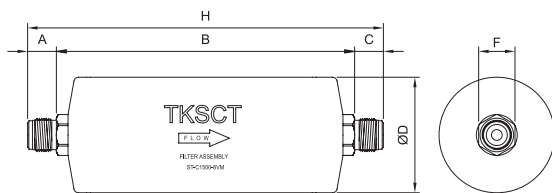


Size		Connection	
6	3/8"	VM	MFS male type
8	1/2"	TW	Lok type
		A	Tube size

Specifications

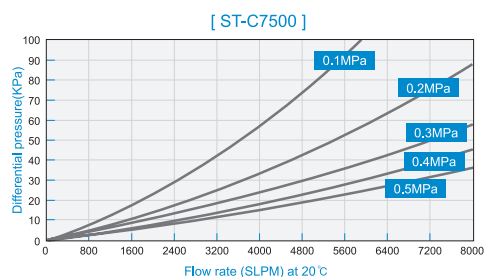
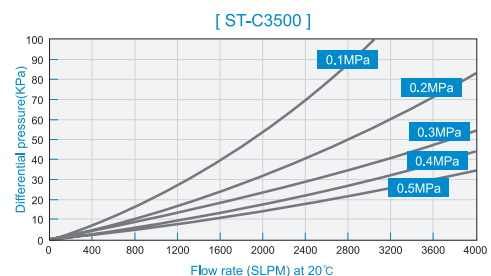
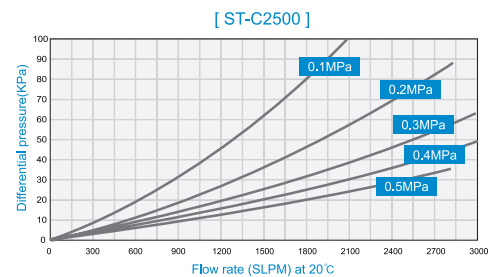
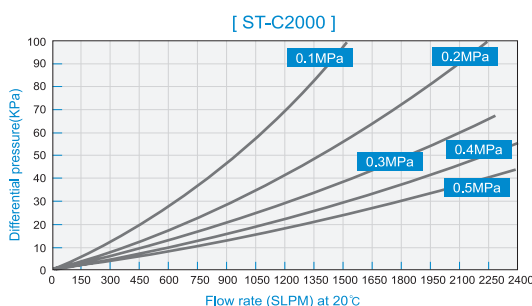
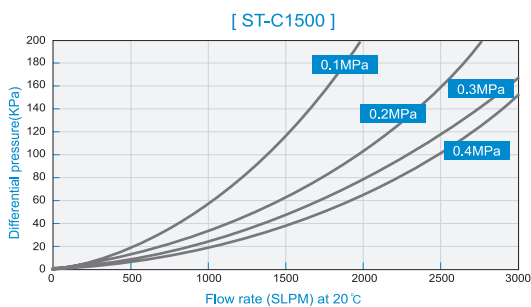
Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.999999% Removal of all particles down to $0.0025 \mu\text{m}$	
Rated flow @ 10"	1500 SLPM, 2000 SLPM, 2500 SLPM, 3500 SLPM, 7500 SLPM	
Materials	Filter element / Support / O-ring	PTFE / PP / VITON
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (10kgf/cm ²) at 20 °C
	Maximum differential pressure	0.4 MPa (4.2kgf/cm ²) at 20 °C
	Maximum operating temperature	100 °C (Inert gas)
Helium leak rating	$1 \times 10^{-9} \text{ atm} \cdot \text{cc} / \text{sec}$	
Surface finish interior	$\leq \text{Ra } 5\mu\text{m}$	

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



PTFE Gas Filter

ST-C Multi Series

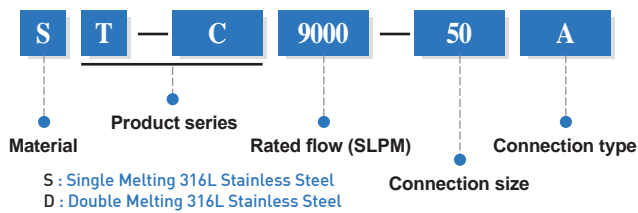
- Ultra-high purity Multi gas filter
- All fluoropolymer filter element
- Electropolished 316 stainless steel housing



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

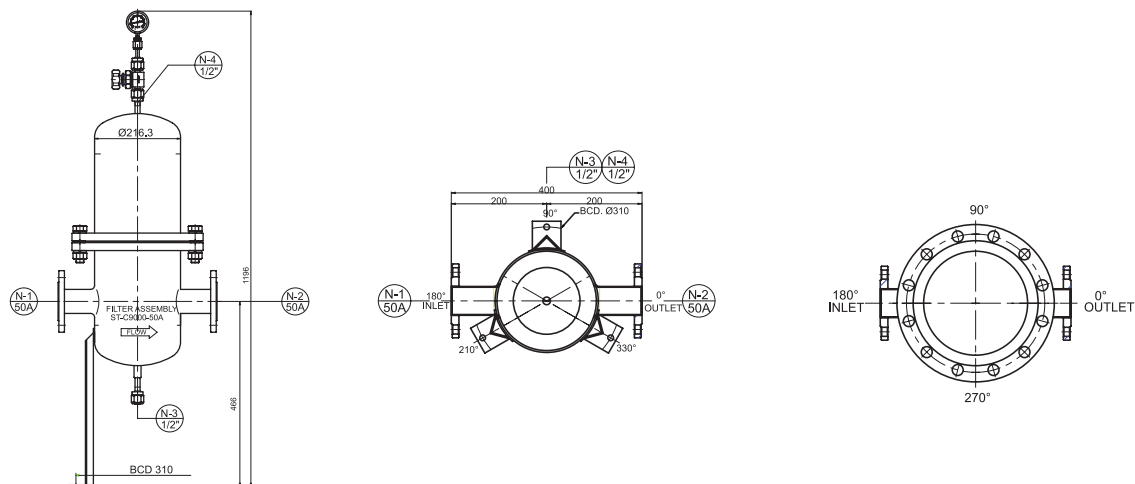


Size	Connection	
50	A	FLANGE Type

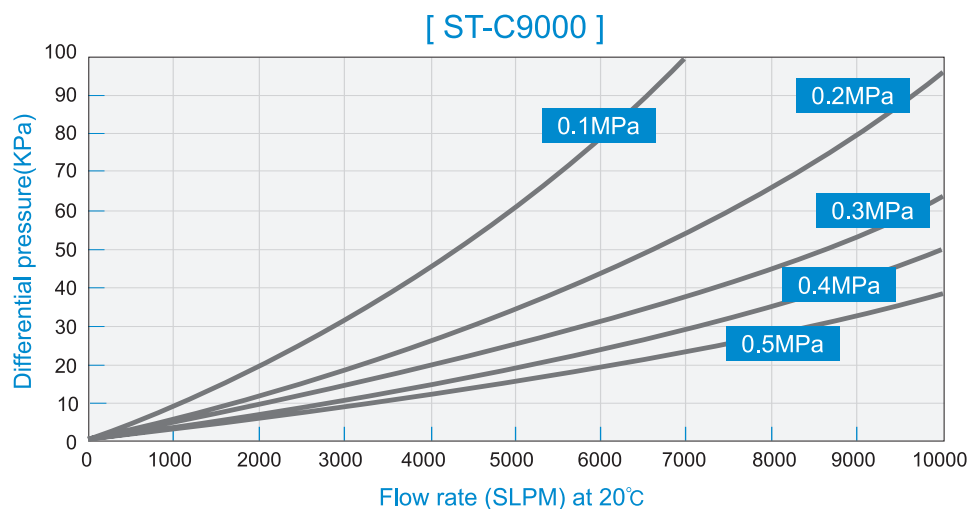
Specifications

Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.9999999% Removal of all particles down to $0.0025 \mu\text{m}$	
Rated flow @ 10"	9000 SLPM	
Materials	Filter element / Support / O-ring	PTFE / PP / VITON
	Housing	316 Stainless steel
Operating conditions	Maximum inlet pressure	1.66MPa (17kgf/cm ²) at 20°C
	Maximum differential pressure	0.6 MPa (6kgf/cm ²) at 20°C
	Maximum operating temperature	100°C (Inert gas)
Helium leak rating	1×10^{-5} atm cc/sec	
Surface finish interior	$\leq \text{Ra } 5\mu\text{in}$	

Dimensions



Performance Data



PTFE Gas Filter

ST-H MAX Series

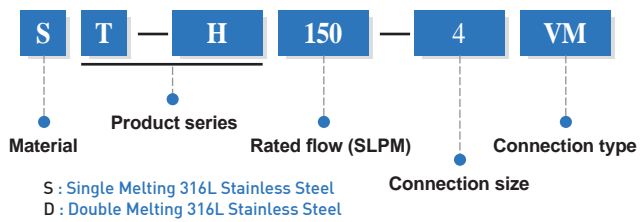
- Ultra-high purity max in-line gas filter
- All fluoropolymer filter element
- Electropolished 316L stainless steel housing



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

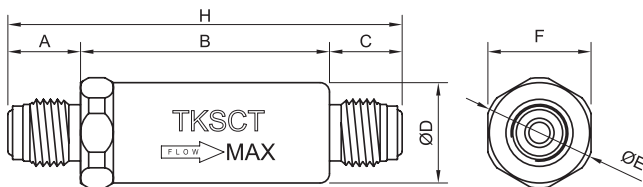


Size		Connection	
4	1/4"	VM	MFS male type
6	3/8"	SW	Lok type
8	1/2"		

Specifications

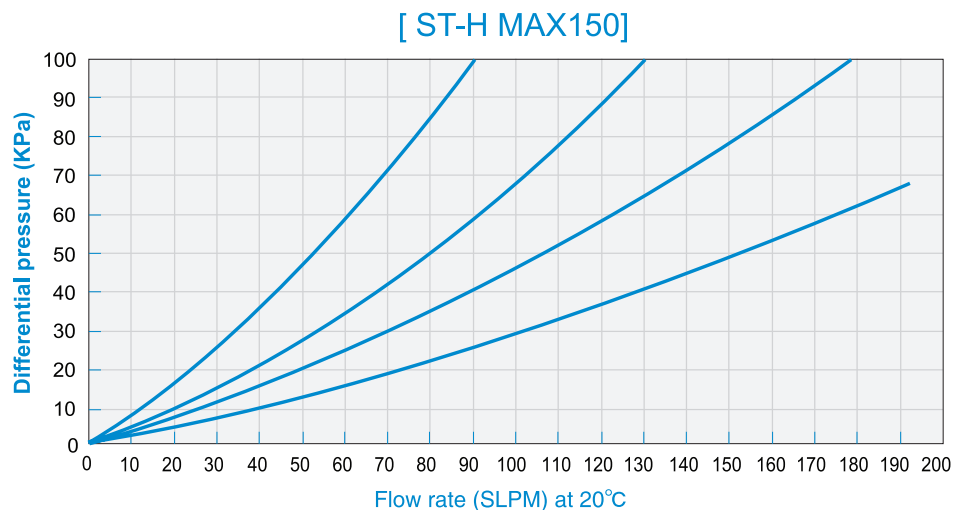
Removal rating	≥ 0.0025 μm	
Retention	Greater than 99.9999999% Removal of all particles down to 0.0025 μm	
Rated flow @ 10 ⁹	150 SLPM	
Materials	Filter element / Support / O-ring	PTFE / PFA / PTFE
	Electropolished housing	SM/DM 316L Stainless steel
Operating conditions	Maximum inlet pressure	0.98 MPa (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-H150-4VM	15.5	53	15.5	21	23.5	22	84
ST-H150-4SW	10	53	10	21	23.5	22	73

Performance Data



IGS Gas Filter

Metal Series

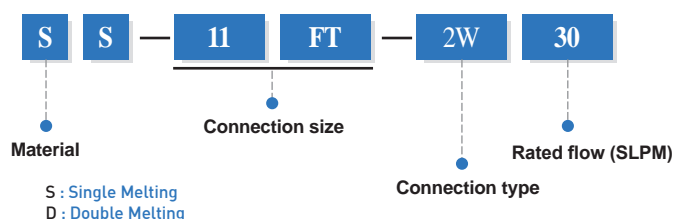
- Ultra-high purity Metal Mini gas filter
- All 316L stainless steel constructions
- High temperature and dynamic pressure applications
- Compact size and high reliability on shock or vibration



Product Features

- Wide range flow rate from 30 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

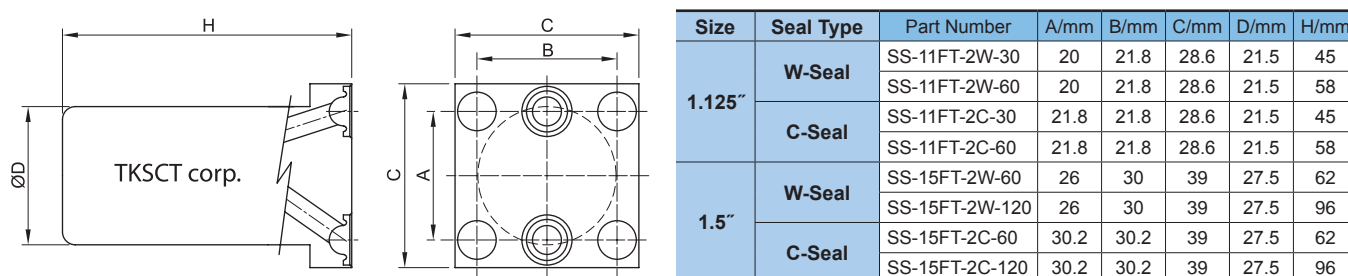


Size		Connection	
11	1.125"	W	W-Seal
15	1.5"	C	C-Seal

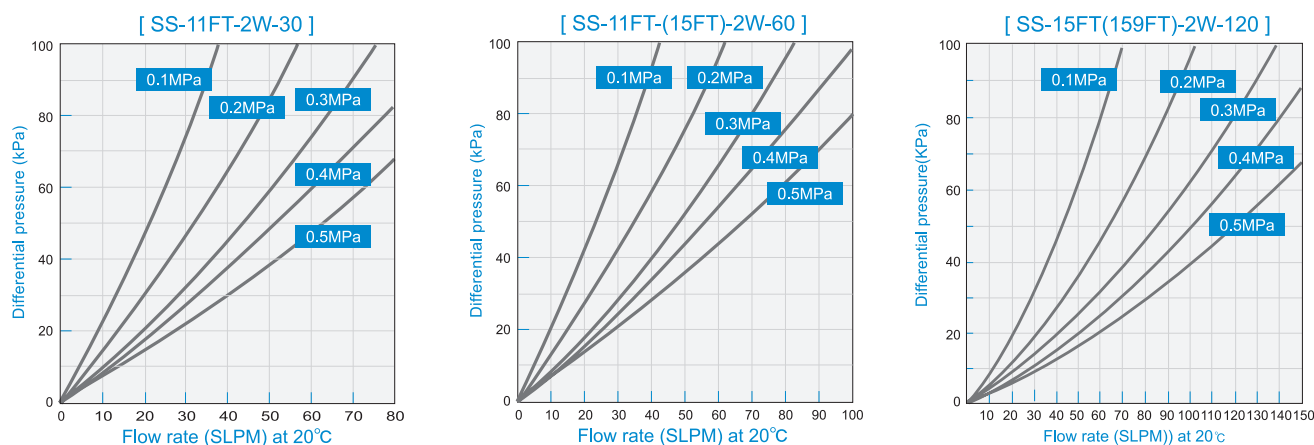
Specifications

Removal rating	$\geq 0.0025 \mu\text{m}$	
Retention	Greater than 99.999999% Removal of all particles down to $0.0025 \mu\text{m}$	
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/cm ²) at 20°C
	Maximum differential pressure	0.7 MPa (7kgf/cm ²) at 20°C
	Maximum operating temperature	460°C (Inert gas)
Helium leak rating	1×10^{-9} atm cc/sec	
Surface finish interior	$\leq \text{Ra } 5\mu\text{in}$	

Dimensions



Performance Data



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 Trifluoride	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 0.0025μm 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

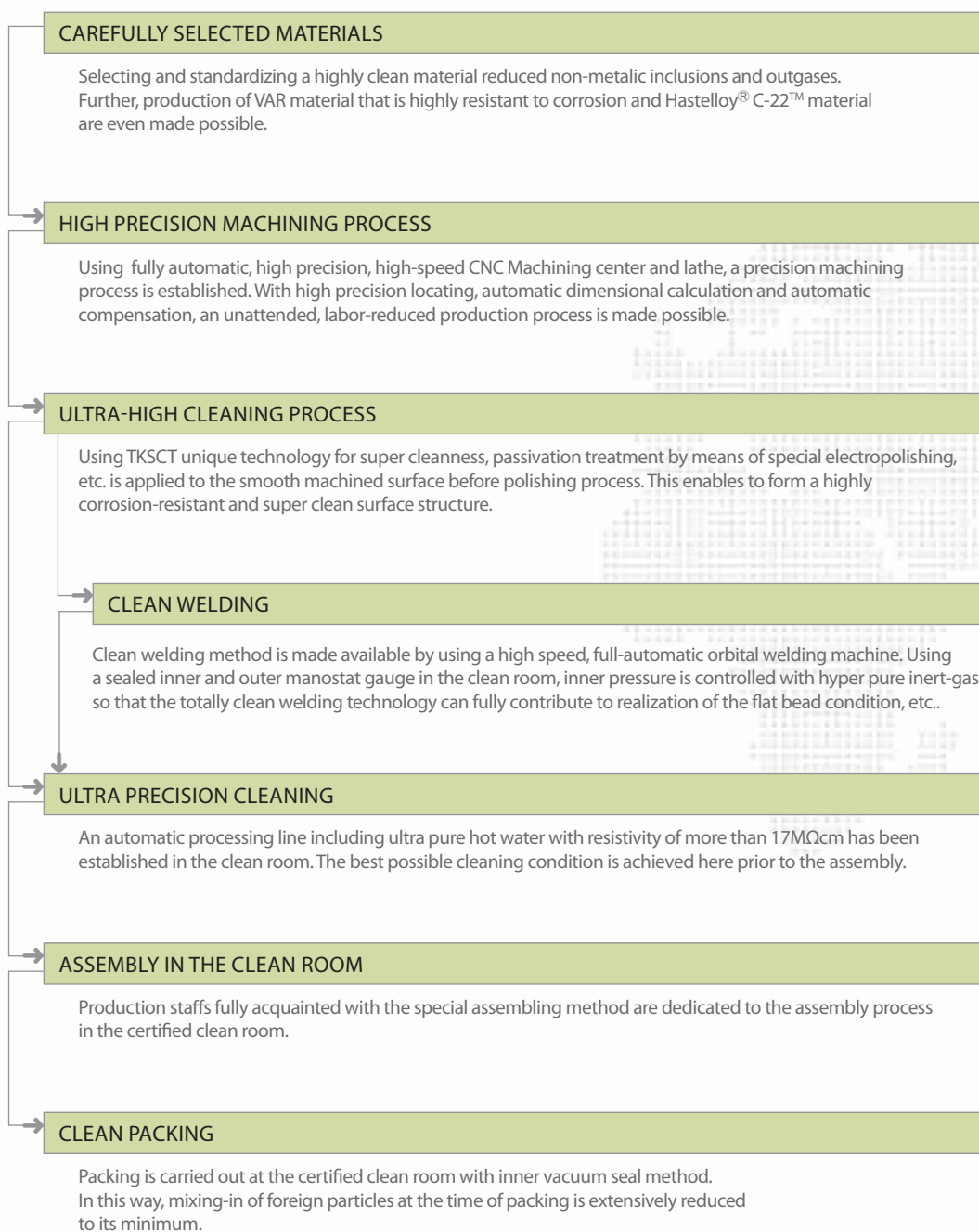
Selection criteria

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

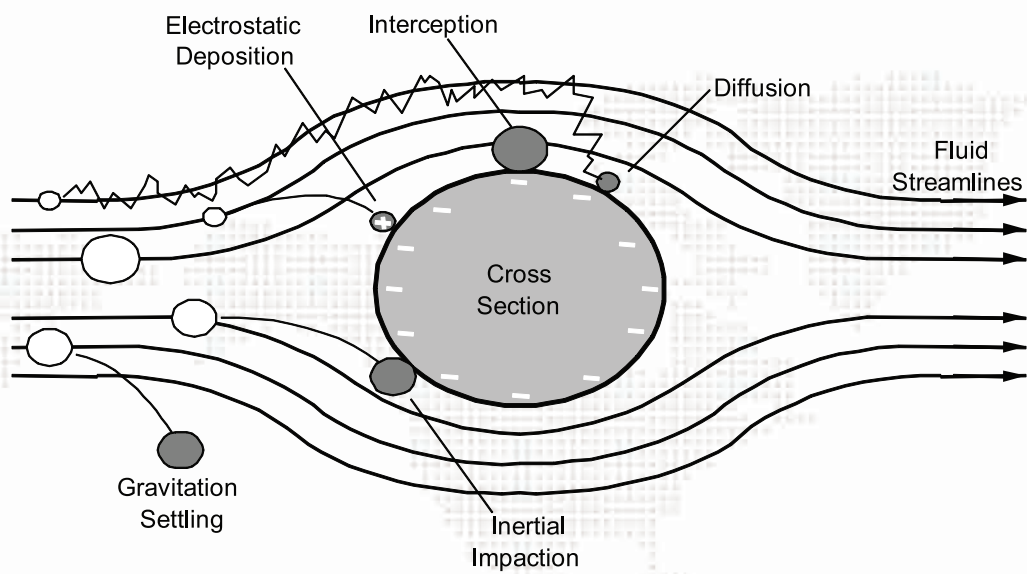
Ultra-high purity in-line Gas filter

■ Production Flow





■ 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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