

PRODUCT **CATALOG**

Electrostatic Total Solution

All about electrostatics,
our know-how is yours!

SUNJE
www.sunstat.com

Company Introduction

Company Introduction

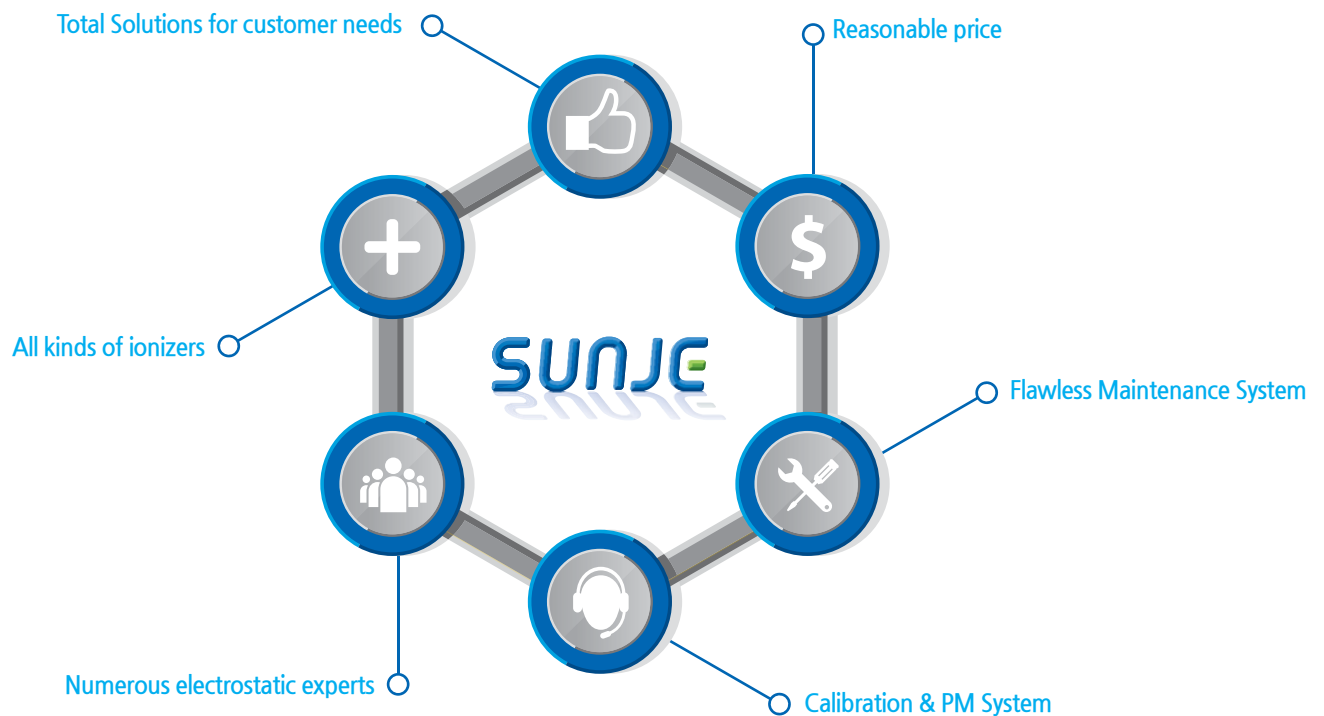
The excellent company tries best to satisfy customer needs!

Sunje has grown as an expert in Electrostatic field based on our accumulated know-how and technology. Since established in year 2000, we aim to be a world top company and keep developing our research and technology for better quality and reliability.

We are striving to create greater customer's value by expanding our business to the plastic and film surface treatment industry and medical industry without being satisfied with the present.

Sunje grows with warm attention and support, we will reward customers with perfect performance.

CEO Dong hoon Lee



Company History

Company History

2011 ~ 2015

- Achieved "Export USD 5,000,000" **2015.**
- Gold Prize for "Patent Management" **2015.**
- "Knowledge Management" Grand Award **2015.**
- Certified Family friendly company **2013.**
- Established China Corporation **2012.**

2016 ~ **Present**

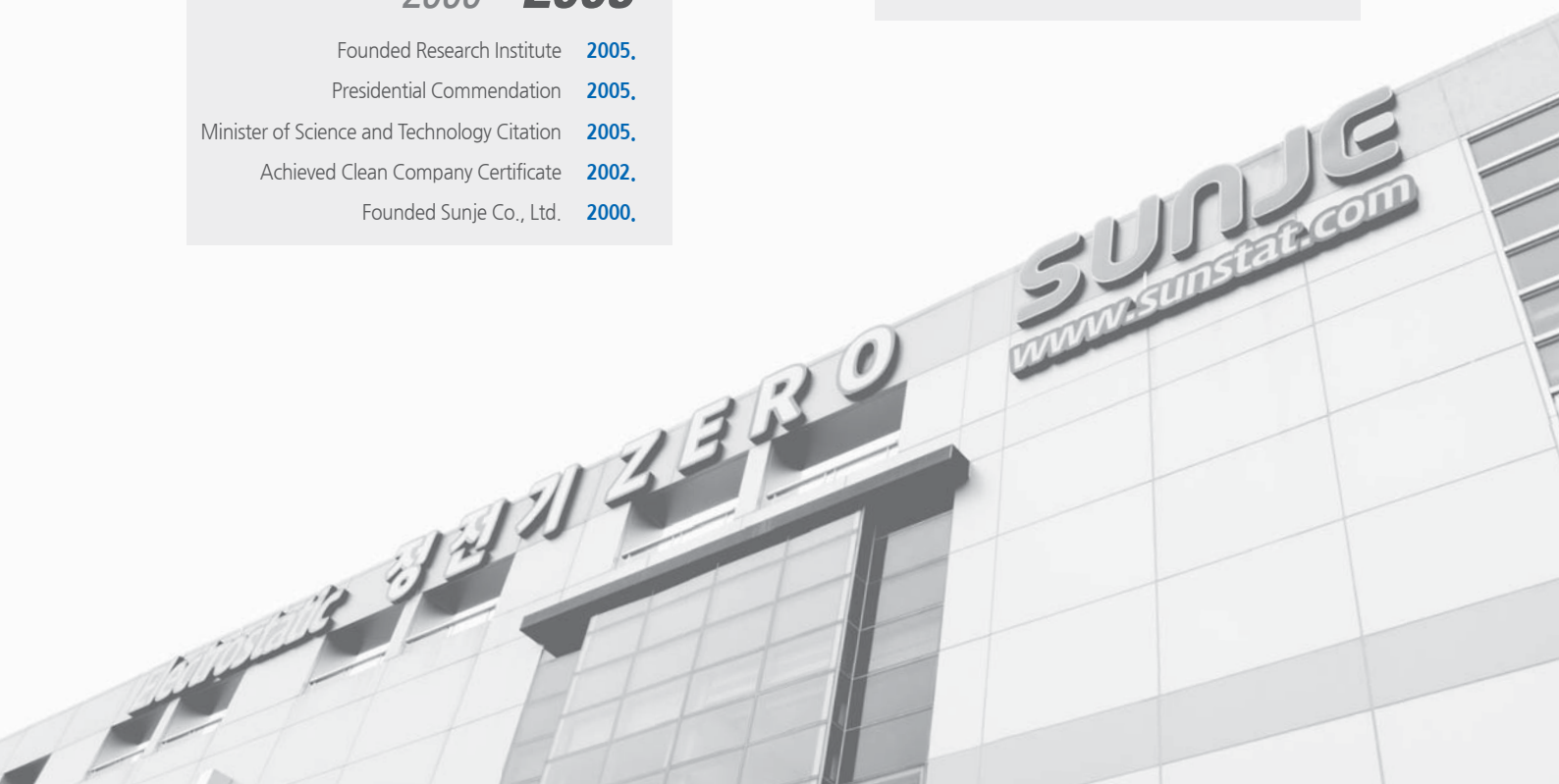
- 2020.** Selected as "Global Hidden Champion"
- 2020.** The 20th anniversary of Sunje foundation
- 2020.** Established Vietnam Corporation
- 2019.** Achieved "Export USD 10,000,000"
- 2019.** Selected as "100 Strong Small Companies"
- 2019.** Awarded Clean Energy innovation company
- 2019.** "Small Business Person of the Year" Grand Award
- 2018.** Awarded "Hidden champion 100"
- 2018.** Selected as "strategic industry leader"
- 2017.** "Korea Excellent Patent" Grand Award

2006 ~ 2010

- 2010.** The 10th anniversary of Sunje foundation
- 2008.** Established Japan Corporation
- 2008.** Export Promising Appointed Company
- 2007.** Minister of Industry and Energy Citation
- 2007.** License for Radiation Equipment (Taiwan)
- 2006.** Established Taiwan Corporation
- 2006.** Awarded Strategic leading Company prize

2000 ~ 2005

- Founded Research Institute **2005.**
- Presidential Commendation **2005.**
- Minister of Science and Technology Citation **2005.**
- Achieved Clean Company Certificate **2002.**
- Founded Sunje Co., Ltd. **2000.**



Domestic & Overseas sales offices

Domestic & Overseas sales offices

Global Sales Offices



Main Customers

Korea

Asia

Europe & USA

Contents

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FPD, Semiconductor Industry



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MMS / RMS *(Measuring Monitoring System / Real Monitoring System)*

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General Industry



Ion Bar

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Surface Treater

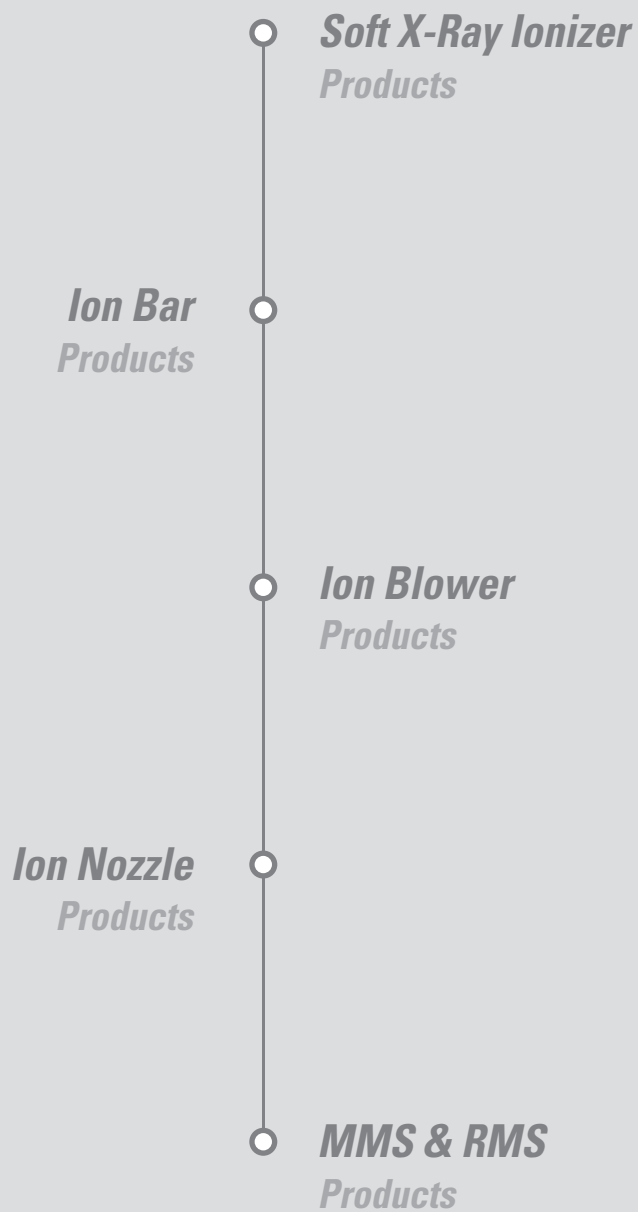
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Dust Removal

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FPD, Semiconductor Industry





Soft X-Ray Ionizer



Soft X-Ray Ionizer is the next generation ionizer that removes static electricity without any dust, electromagnetic wave, ozone and maintenance work.

Soft X-Ray Ionizer Products

- *Bar Type (SXB-05N, SXB-05W, SXB-05NAA / SXB-05NSAA)*
- *Pin Type (SXH-05SP1)*
- *5kV Products (SXH-05S, SXH-05S(I), SXN-05U, SXN-05R)*
- *10kV Products (SXH-10SD)*
- *15kV Products (SXN-15NH, SXN-15U)*
- *Power Controller (SXC-104N)*
- *Decay Time*
- *Radiation Shielding method*

Bar Type Soft X-Ray Ionizer



Compensates drawbacks of corona type ionizer (ex. particle issue, regular cleaning, using CDA requires extra cost to maintain). This product is effective to use in wide area and able to use in various environment with its slim size.

SXB-05N (10kV Manufacture Available) 

BEST SELLER



Key Features

- Optimized for transporting section
- Particle Free, Ozone Free, No Air Flow, Perfect Ion Balance
- Possible to ionize on the rear side
- Prompt tube replacing on the spot 
- Cost saving due to individual Tube module purchase
- Possible to maintain long-term performance
- External controller type
- With RMS, possible to check operation status in real time (Option) 

Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Tube Voltage	4.9kV
Beam Angle	150°
Input Power	AC 100V ~ 240V, 50/60Hz
Power Consumption (with Bar)	Max. 130W
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Alarm Function	H/V Abnormal, Communication error
Interface	(Run, Alarm, Power, Over Time, Remote, Interlock) Remote On/Off, Interlock On/Off, Output State
Controller Fuse	250V, 3A, 5X20 Glass Type Fuse
Ion Bar Length	SXB-05N : 300 ~ 2800 mm
	SXB-10N : 300 ~ 3400 mm
Weight	Controller (SXC-10BT/BL) 1.05kg
Warranty	1 year

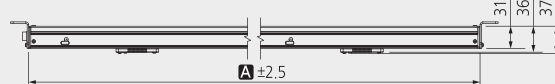
* The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Dimensions

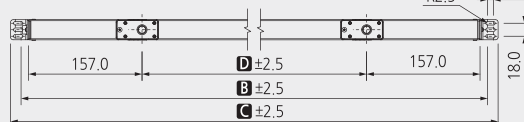
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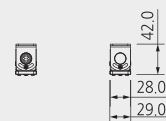
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No.	MODEL No.	A	B	C	D	TUBE Q'TY
1	SXB-05N-300-1	314	335	391	-	1
2	SXB-05N-600-2	625	646	675	-	2
3	SXB-05N-900-3	936	957	986	311	3
4	SXB-05N-1200-4	1247	1268	1297	-	4
5	SXB-05N-1500-4	1558	1579	1608	414.6	4
6	SXB-05N-1500-5	1558	1579	1608	311	5
7	SXB-05N-1800-5	1869	1890	1919	388.8	5
8	SXB-05N-1800-6	1869	1890	1919	311	6
9	SXB-05N-2200-6	2180	2201	2230	373.2	6
10	SXB-05N-2200-7	2180	2201	2230	311	7
11	SXB-05N-2500-7	2491	2512	2541	362.8	7
12	SXB-05N-2500-8	2491	2512	2541	311	8
13	SXB-05N-2800-7	2802	2823	2852	414.6	7
14	SXB-05N-2800-9	2802	2823	2852	311	9

* Model line up is changeable depending on Tube Pitch (D) and Tube Q'ty except for regular Line Up above.

- Tube Pitch can be changed within the range of 311~622mm.

- Tube Q'ty Max. 9ea

SXB-05W (Waterproof structure)



NEW

It is waterproof type and suitable to use air knife area.
(achieved IPX 5th grade)



Key Features

- Possible to use in humid area (Waterproof structure)
- Particle Free, Ozone Free, No Air Flow, Perfect Ion Balance
- Prompt tube replacing on the spot **Patent**
- Cost saving due to individual Tube module purchase
- Possible to maintain long-term performance
- External controller type
- With RMS, possible to check operation status in real time (Option) **Patent**

Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Tube Voltage	4.9kV
Beam Angle	150°
Input Power	AC 100V ~ 240V, 50/60Hz
Power Consumption (with Bar)	Max. 130W
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Alarm Function	H/V Abnormal, Communication error
Interface	(Run, Alarm, Power, Over Time, Remote, Interlock) Remote On/Off, Interlock On/Off, Output State
Controller Fuse	250V, 3A, 5X20 Glass Type Fuse
Weight	Controller (SXC-10BT) 1.05kg
Warranty	1 year

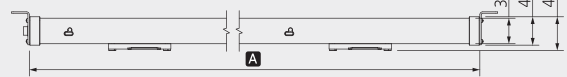
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Dimensions

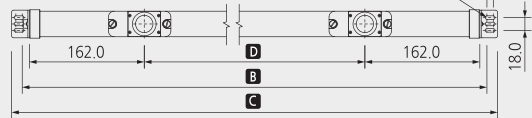
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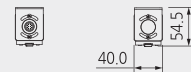
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No.	MODEL No.	A	B	C	D	TUBE QTY
1	SXB-05W-300-1	324	344	374	-	1
2	SXB-05W-600-2	635	655	685	311	2
3	SXB-05W-900-3	946	966	996		3
4	SXB-05W-1200-4	1257	1277	1307		4
5	SXB-05W-1500-5	1568	1588	1618		5
6	SXB-05W-1800-6	1879	1899	1929		6
7	SXB-05W-2200-7	2190	2210	2240		7
8	SXB-05W-2500-8	2501	2521	2551		8
9	SXB-05W-2800-9	2812	2832	2862		9
10	SXB-05W-3100-10	3123	3143	3173		10
11	SXB-05W-3400-11	3434	3454	3484		11

SXB-05NAA / SXB-05NSAA (Air Assistant)

NEW

► SXB-05NAA Series (Low current)



► SXB-05NSAA Series (High current)

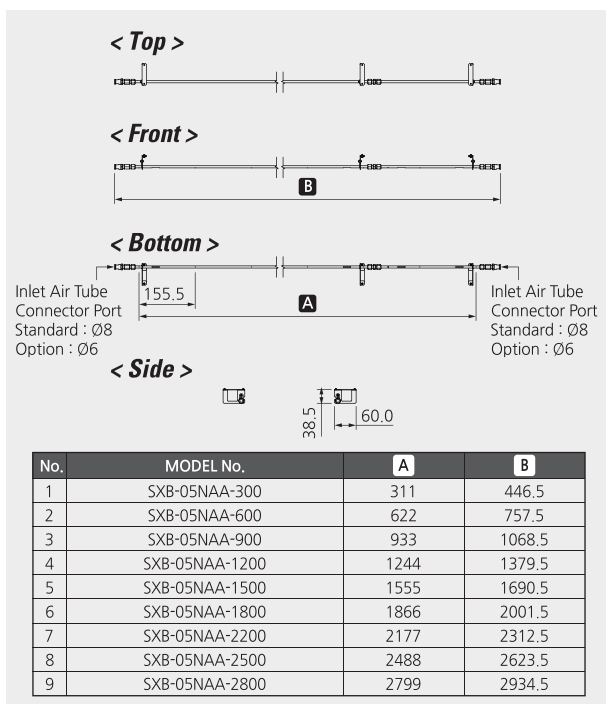


Key Features

- Compressed air brings fast and long distance static elimination
- Installation as an option on the existing products is available
- Optimizing the design of the air injection port for high performance
- Using the SUS material for excellent corrosion protection and durability

Dimensions

► SXB-05NAA Series



► SXB-05NSAA Series

< Top >

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Inlet Air Tube
Connector Port
Standard : Ø8
Option : Ø6

Inlet Air Tube
Connector Port
Standard : Ø8
Option : Ø6

< Side >

38.5
60.0

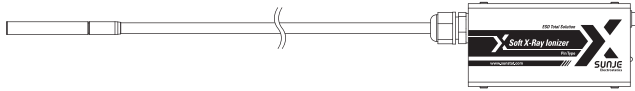
No.	MODEL No.	A	B
1	SXB-05NSAA-300	311	446.5
2	SXB-05NSAA-700	700	857.5
3	SXB-05NSAA-1100	1120	1277.5
4	SXB-05NSAA-1500	1540	1697.5
5	SXB-05NSAA-2000	1960	2117.5
6	SXB-05NSAA-2400	2380	2537.5
7	SXB-05NSAA-2800	2800	2957.5
8	SXB-05NSAA-3200	3220	3377.5
9	SXB-05NSAA-3600	3640	3797.5

Pin Type Soft X-Ray Ionizer

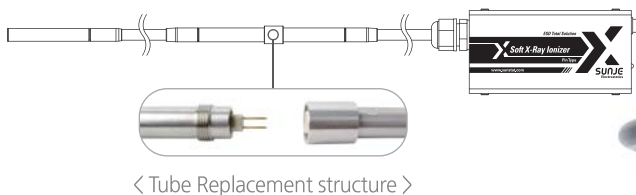
By using mini-size X-ray tube, you can find the downsized tube module. This product is not only useful to install in narrow area but also able to install in the stage and at the bottom surface so that direct ionization shows better performance.

SXH-05SP1 (10kV Manufacture Available) CE

► Standard Type



► Tube Replacement Type (Option)



Key Features

- Embodied downsized tube module with a mini-size X-ray tube
- Can be installed in a narrow area and applied for various environment
- It can deliver ionized air to rear side of the target directly by installing on the bottom surface
- Purchasing by the individual parts brings economic savings and easy replacement
- With RMS, possible to check operation status in real time (Option) **Patent**

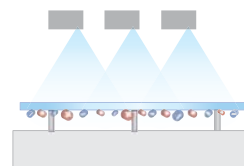
Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Beam Angle	150°
Operation Circumstance	0°C ~ +50°C (32°F ~ 122°F), 35% ~ 85% RH
Mounting Method	Bolt Mounting with Bracket
Weight	Standard : 0.37kg Option : 0.46kg
Alarm Function	Head Fail, Head Communication error
Interface	(Run, Alarm, Power, Over Time, Remote, Interlock) Remote On/Off, Interlock On/Off, Output State
Warranty	1 year

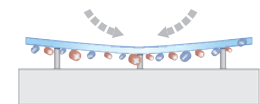
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Application

► Existing Products



The difficulty of rear side static removal

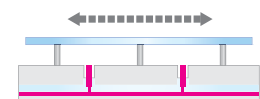


The difficulty of static detachment (Glass breakage occurrence)

► SXN-05/10SP1



Direct install to bottom part of the target object for ionization



Free from electrostatic detachment symptom (Protect glass breakage)

► Existing Products



The difficulty of installing in a narrow space



Limited static removal range

► SXN-05/10SP1



Easy to install in a narrow space

Can be installed and applied in various environment

5kV Soft X-Ray Ionizer



Soft X-Ray Ionizer is a next generation model compare to other ionizers using corona discharge. It doesn't generate particles, electromagnetic waves and ozone and also no need of compressed air and any maintenance. (Suitable for small and limited area)

SXH-05S (10kV Manufacture Available) 

BEST SELLER

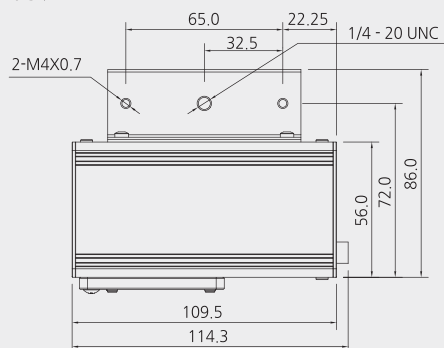


Key Features

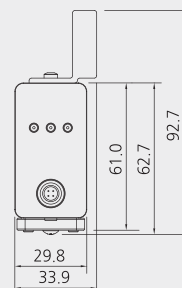
- Easy attachable / detachable Module structure 
- Suitable for small and limited area
- Cost saving due to individual Tube module purchase
- Prompt replacement is possible on the spot
- With RMS, possible to check operation status in real time (Option) 

Dimensions

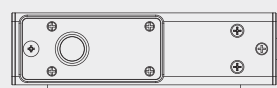
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Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Tube Voltage	4.9kV
Beam Angle	150°
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Mounting Method	Bolt Mounting with Bracket
Weight	0.28kg
Alarm Function	Head Fail, Head Communication error
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SXH-05S (In Line Type)

NEW



Key Features

- Ionizing fluid (N2, CDA) in transporting section
- Module structure makes connecting part(3/8inch) combine & separate easy
- Cost saving due to individual Tube module purchase
- With RMS, possible to check operation status in real time (Option) **Patent**

Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Beam Angle	150°
Current Consumption	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Mounting Method	Bolt Mounting with Bracket
Weight	0.52kg
Alarm Function	Head Fail, Head Communication Error
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SXN-05U



All-in-one type (Power supply built-in)



Key Features

- Applicable for ESD sensitive production line or semiconductor assembly
- Suitable for small and limited area
- With RMS, possible to check operation status in real time (Option) **Patent**

Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Beam Angle	150°
Mounting Method	Bolt Mounting with Bracket
Weight	0.4kg
Alarm Function	Head Fail
Warranty	1 year

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SXN-05R



All-in-one type (Power supply built-in)



Key Features

- Suitable for robot taking out plastic injection molding
- Suitable for small and limited area
- With laser point application, the x-ray radiation angle can be viewed all time
- With RMS, possible to check operation status in real time (Option) **Patent**

Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Beam Angle	150°
Power Consumption	9.6W
Current Consumption	Max. 400mA(DC 24V)
Mounting Method	Bolt Mounting with Bracket
Weight	0.28kg
Alarm Function	Head Fail
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

10kV Soft X-Ray Ionizer

Soft X-Ray Ionizer is a next generation model compare to other ionizers using corona discharge. It doesn't generate particles, electro-magnetic waves and ozone and also no need of compressed air and any maintenance. (Suitable for the high ion density ionizing capacity)

SXH-10SD



NEW



► Normal operation

Main tube operation,
Sub tube stop



► Error from a tube

Sub Tube operation



Key Features

- Due to replaceable dual tubes, better maintenance function is guaranteed (If one of the tubes has an error, the other tube automatically starts to run) **Patent**
- This is optimized for automatic process as no need to stop the line
- Easy attachable/detachable Module structure
- Cost saving due to individual Tube module purchase
- Prompt replacement is possible on the spot
- With RMS, possible to check operation status in real time (Option) **Patent**

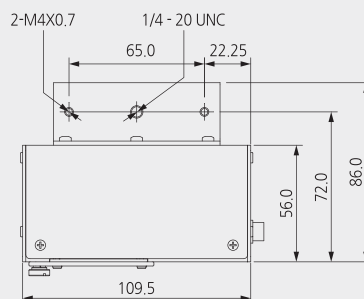
Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Beam Angle	150°
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Mounting Method	Bolt Mounting with Bracket
Weight	0.47kg
Alarm Function	Head Fail, Head Communication error
Warranty	1 year

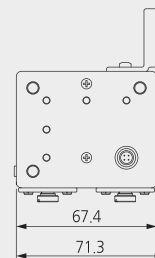
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Dimensions

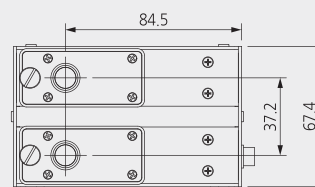
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15kV Soft X-Ray Ionizer

High performance with 15kV makes ionization more effective in wide area.

SXN-15NH



NEW



Key Features

- With high power 15kV application, it is effective for wide area and long distance
- Easy attachable / detachable Module structure
- Prompt replacement is possible on the spot
- Cost saving due to individual Tube module purchase
- When the communication status between Head and controller is not normal, it stops automatically
- Individual control for 4 heads to turn on/off using RS-485 communication protocol
- With RMS, possible to check operation status in real time (Option) **Patent**

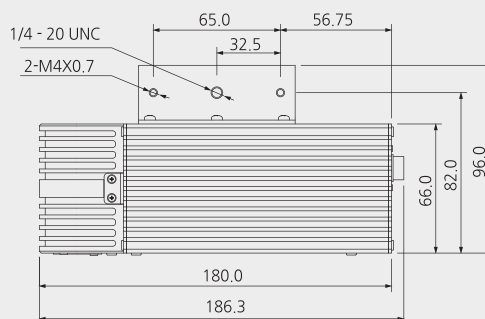
Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Beam Angle	150°
Input Power	AC 100V ~ 240V, 50/60Hz
Power Consumption	Max. 40W
Operation Circumstance	0°C ~ +50°C (32°F ~ 122°F), 35% ~ 85% RH
Mounting Method	Bolt Mounting with Bracket
Weight	0.92kg
Alarm Function	H/V Abnormal, Communication Error
Interface	(Run, Alarm, Power, Over Time, Remote, Interlock) Remote On/Off, Interlock On/Off, Output State
Warranty	1 year

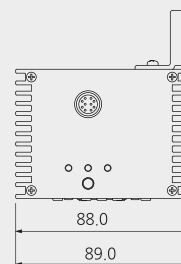
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Dimensions

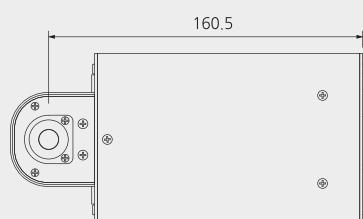
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SXN-15U



BEST SELLER

Power Supply Built-In
(Separated Type
Manufacture Available)



► Flexible Arm



► SXC-154L (Power Controller)

SXN-15U Power controller separate type (1:4 Type / Option)



Key Features

- X-ray radiating direction can be controlled with flexible arm (length : 300mm) and this brings you easier, convenient installment condition
- With 15kV application, it is effective for wide area and long distance
- Downsized tube makes possible to install in limited area
- All-in-one type(Power supply built-in) & Easy installation (Power controller separate type : Option)
- With RMS, possible to check operation status in real time (Option) Patent

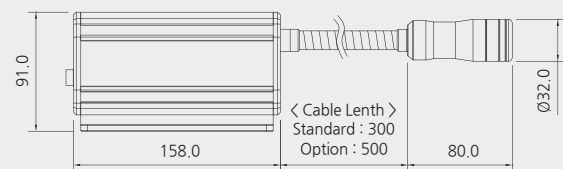
Specifications

Parameter	Description / Value
Ion Generation Method	Soft X-ray
Source	Soft X-ray Tube
Beam Angle	150°
Input Power	AC 100V ~ 240V, 50/60Hz(Adaptor Input)
Power Consumption	13W
Operation Circumstance	Power : 0°C ~ +36.5°C / Head : 0°C ~ +52°C
Mounting Method	Bolt Mounting with Bracket
Weight	1.4kg
Alarm Function	Head Fail
Indicator	Alarm State, Over Time State
Warranty	1 year

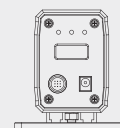
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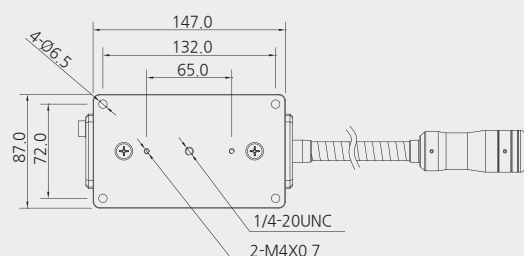
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Power Controller

Power Controller for Soft X-ray Ionizer

SXC-104N

CE

NEW



Head Unit 1

Head Unit 3

Head Unit 2

Head Unit 4

Key Features

- **Controller for Head Unit SXH-05N, SXH-10N, SXH-10SD**
Compatible with SXH-05/10S, SXH-05/10T, SXH-05/10SP1
- Displaying head unit serial number and identifying head unit location function
- Communication with RS-485, the information of the accumulated head usage time can be managed through PC
- Various output - Alarm, Interlock, Remote, Power, Life Time Over **Patent**
- Convenient function -D-Sub Output, Head Unit Life Time Alarm Function **Patent**
- Max.4 Head installation makes effective for a large quantity installation **Patent**
- With RMS, possible to check operation status in real time (Option) **Patent**

Specifications

Parameter	Description / Value
Input Power	AC 100~240V, 50/60Hz
Power Consumption (with Head)	Max. 50W
Controller Fuse	250V, 3A, 5X20 Glass Type Fuse
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Weight	0.62kg
Alarm Function	Head Fail, Head Communication Error
Indicator	Power State, Remote State, Interlock State, Run State, Alarm State
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Connectable Products

This table shows applicable Soft X-ray Ionizer to the controller by model

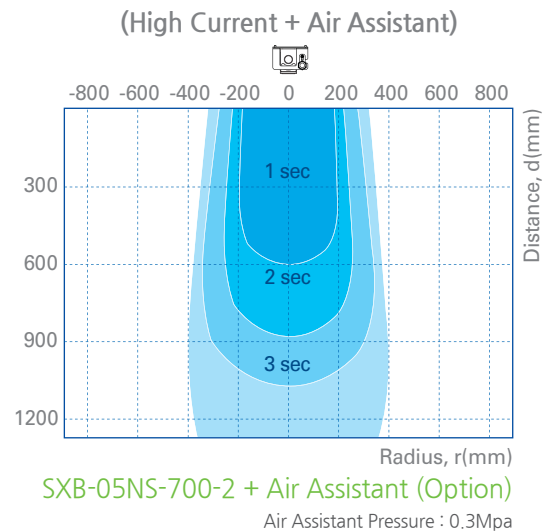
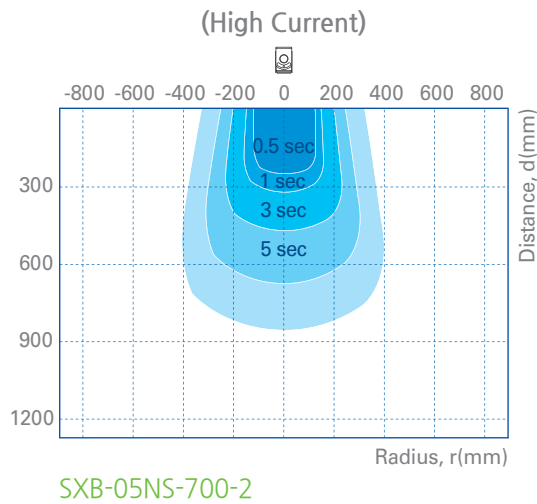
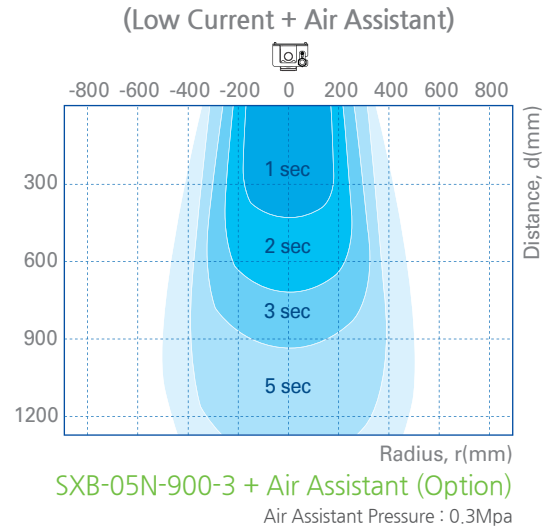
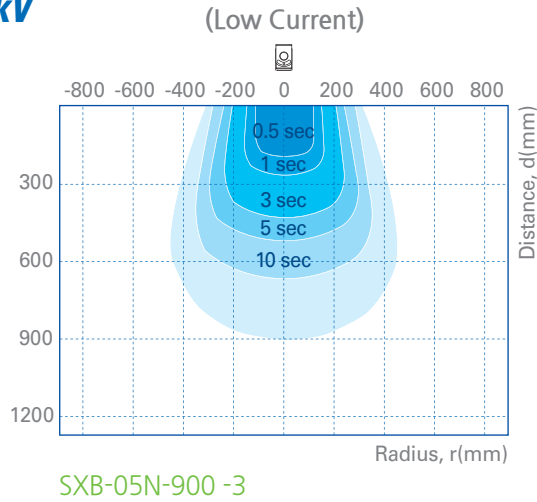
Soft X-ray Ionizer	Controller	
	SXC-104N	SXC-10BT
SXN-05U	All-in-one type	
SXN-05R		
SXN-15U		
SXN-05BN		●
SXN-05BW		●
SXN-05SP1	●	
SXN-05S	●	
SXN-05S(I)	●	
SXN-10SD	●	

Decay Time Characteristics

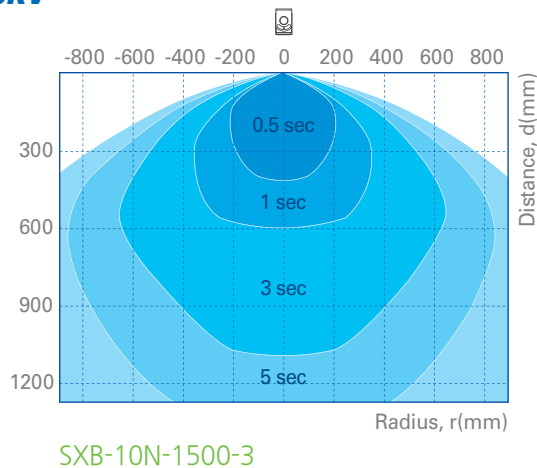
Following graph shows Soft X-ray Ionizer performance

Bar Type

5kV



10kV

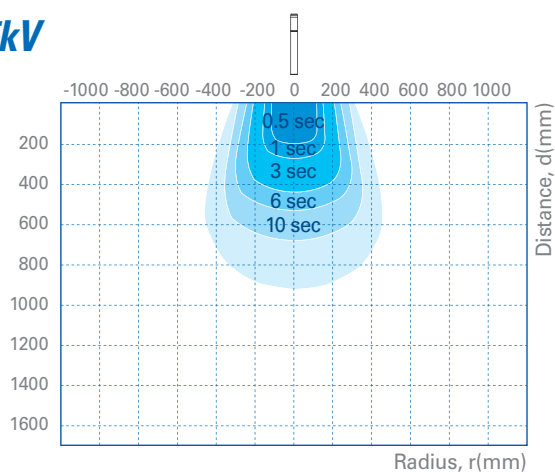


Test Conditions

- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH

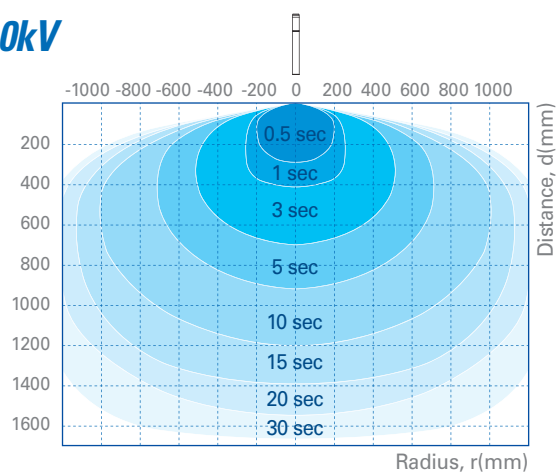
Pin Type

5kV



SXN-05SP1

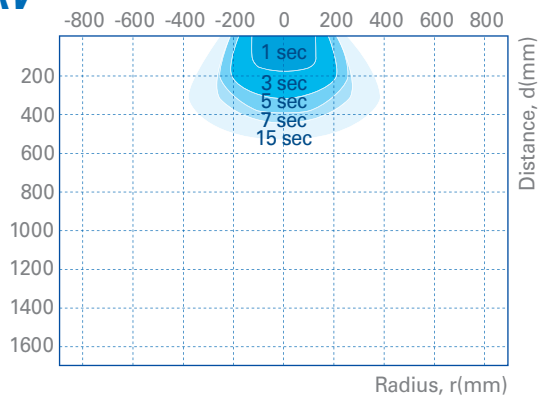
10kV



SXN-10SP1

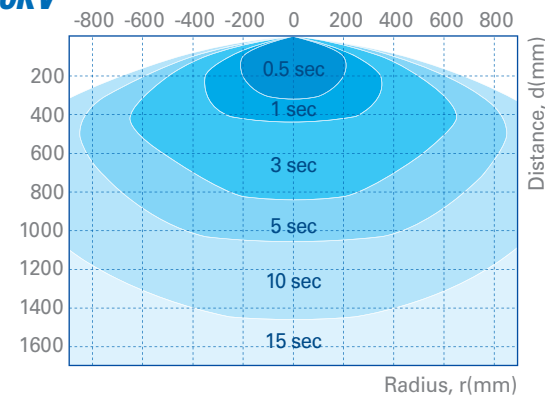
Nomal Type

5kV



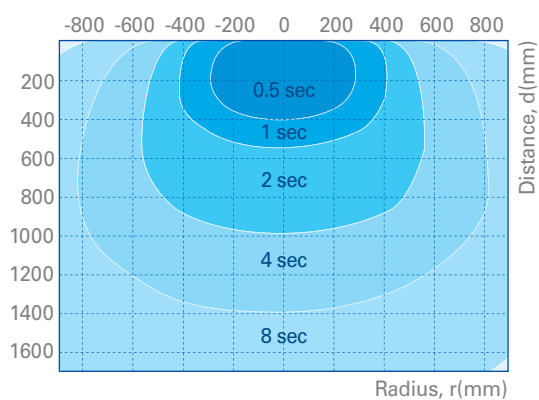
SXN-05U

10kV



SXN-10S

15kV



SXN-15U

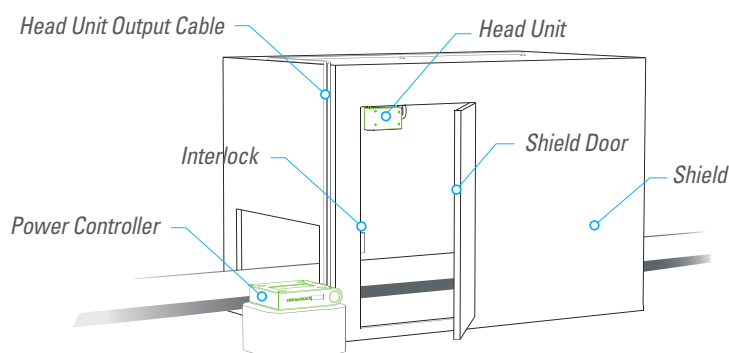
Test Conditions

- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH

Radiation Shielding Method

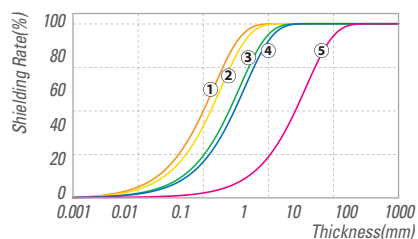
For Soft X-Ray Ionizer

- Please be careful to avoid direct exposure from the soft X-ray, since it may cause any skin problems. Therefore, you need to shield the area where X-ray emits in order to protect yourself. Check your Soft X-Ray Ionizer circumstance first and then apply interlocking system before using X-ray ionizer. Please keep in mind that allowed leakage level for radiation dose is $10\mu\text{Sv/hr}$ or under, So keep your area under the mentioned level all the time. (The leakage level of radiation dose might differ in countries. e.g. South Korea : $10\mu\text{Sv/hr}$)
- Please refer to the below chart for possible materials of shielding and its acceptable thickness.



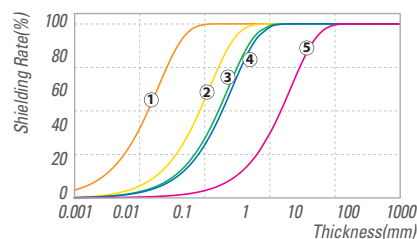
Material Shielding Rate

► Soft X-Ray Ionizer [5kV]



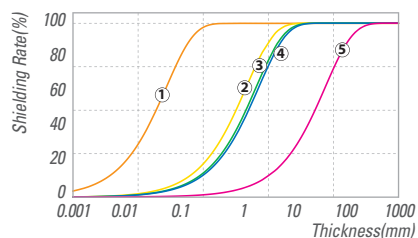
Material	Thickness(mm)
① SUS	Over 0.2
② Aluminum	Over 0.25
③ Glass	Over 0.5
④ PVC	Over 0.6
⑤ Acrylic	Over 5.0

► Soft X-Ray Ionizer [10kV]



Material	Thickness(mm)
① SUS	Over 0.3
② Aluminum	Over 2.0
③ Glass	Over 4.0
④ PVC	Over 4.5
⑤ Acrylic	Over 40.0

► Soft X-Ray Ionizer [15kV]



Material	Thickness(mm)
① SUS	Over 0.4
② Aluminum	Over 7.0
③ Glass	Over 10.0
④ PVC	Over 11.0
⑤ Acrylic	Over 120.0

Radiation

With radiation You can ionize some substance,
Energy flow that radiated substance generates

Radioactivity

The intensity of radiation

Radiation is neither accumulated nor contaminated.

Due to uncertainty that human cannot judge by five senses,
its danger is exaggerated than the actual.

Radiation can be made intentionally, but also stays in the
nature at all times just like other energy flow.



Ion Bar



Static electricity is eliminated by using Corona high-voltage discharge technology.

As a static elimination device most commonly used in many industries,
it is a bar shape capable of a wide range of static electricity elimination.

Ion Bar Products



SIB5S-C Series

Decay Time

Ion Bar

Bar type static eliminator with minimized corona discharge loss.

! Regular maintenance is required for normal performance and managing process. If maintenance is insufficient, it can affect process and cause abnormal operation.

SIB5S-C Series



NEW

All-in-one type
(Power supply built-in)

Extended
ISO Class 1
★



Key Features

- Stable ion balance during long term usage
- Low peak voltage through high frequency
- Improved convenience of maintenance by minimizing wear and contamination of discharge emitter
- Increase ion generation by reducing corona discharge loss
- Tip cleaning alarm (You can set tip cleaning period with timer)
- One touch type for easy tip replacement and cleaning **Patent**

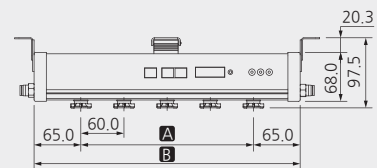
Specifications

Parameter	Description / Value
Input Power	DC 24V (±5%)
Power Consumption	Max. 4.8W
Current Consumption	Max. 200mA
High Voltage	Pulse AC 11.5kV
Ion-Generation Method	Corona Discharge Pulse AC
Structure	Capacity coupled
Connector	Power(DC24V), RS485, Interface : RJ45
Operating Distance	50~2,000mm
Air Purge Supply Pressure	0.1 ~ 0.5MPa (CDA, N2)
Operation Circumstance	0°C~+50°C(32°F~122°F), 35%~85% RH
Ozone(O3) Concentration	≤0.05ppm
Main Body Material	Non-Flammable ABS (Level V0)
Electrode Material	Tungsten
Electrode Replacement	Cartridge type
Model Line Up	400mm~ 3000mm
Function	Alarm
	Over Discharge Alarm, Tip Cleaning Timer Alarm
	Run/Stop State : Run-Closed / Stop-Open
Interface	Over Discharge Alarm : Normal-Open / Alarm-Closed
	Tip Cleaning Timer Alarm : Normal-Open / Alarm-Closed
Communication	Remote Input : DC 24V (15mA)
	RS485
Option	SBP-RD (DC Power Supply)
Warranty	1 year

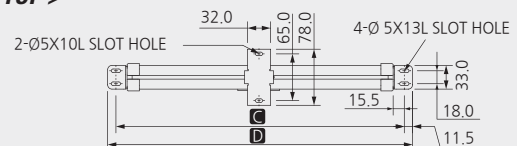
※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Dimensions

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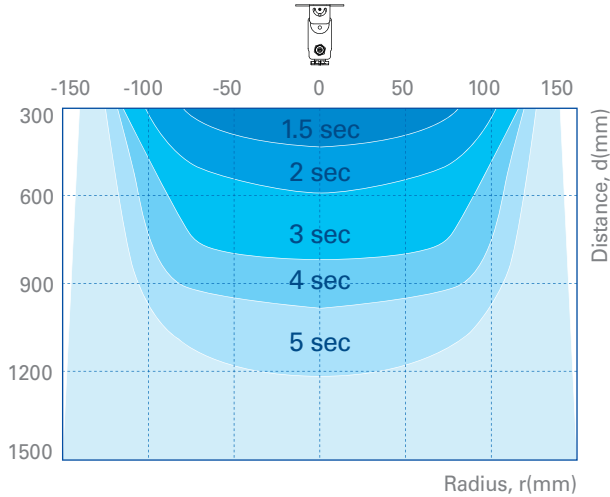


No.	Model No.	Tip Q'TY	A	B	C	D	Middle BKT Q'TY
1	SIB5-400S-C	5	240	370	401	424	-
2	SIB5-500S-C	7	360	490	521	544	-
3	SIB5-600S-C	9	480	610	641	664	-
4	SIB5-700S-C	11	600	730	761	874	-
5	SIB5-900S-C	13	720	850	881	904	-
6	SIB5-1000S-C	15	840	970	1001	1024	-
7	SIB5-1100S-C	17	960	1090	1121	1144	-
8	SIB5-1200S-C	19	1080	1210	1241	1264	-
9	SIB5-1300S-C	21	1200	1330	1361	1384	-
10	SIB5-1500S-C	23	1320	1450	1481	1504	1
11	SIB5-1600S-C	25	1440	1570	1601	1624	1
12	SIB5-1700S-C	27	1560	1690	1721	1744	1
13	SIB5-1800S-C	29	1680	1810	1841	1864	1
14	SIB5-1900S-C	31	1800	1930	1961	1984	1
15	SIB5-2100S-C	33	1920	2050	2081	2104	2
16	SIB5-2200S-C	35	2040	2170	2201	2224	2
17	SIB5-2300S-C	37	2160	2290	2321	2344	2
18	SIB5-2400S-C	39	2280	2410	2441	2464	2
19	SIB5-2500S-C	41	2400	2530	2561	2584	2
20	SIB5-2700S-C	43	2520	2650	2681	2704	2
21	SIB5-2800S-C	45	2640	2770	2801	2824	2
22	SIB5-2900S-C	47	2760	2890	2921	2944	2
23	SIB5-3000S-C	49	2880	3010	3041	3064	2

Decay Time Characteristics

Following graph shows Ion Bar performance

SIB5S-C Series

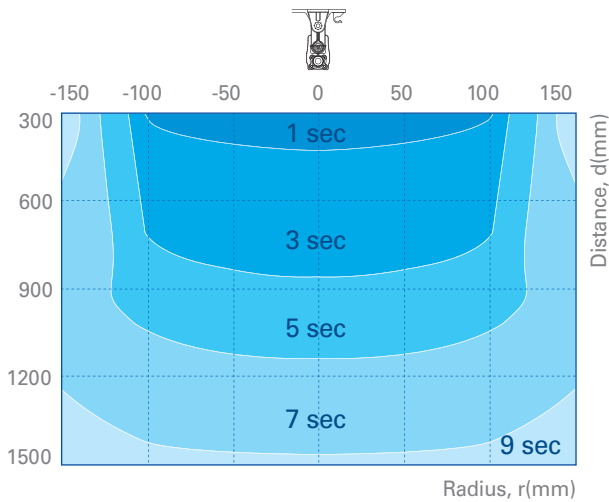


Test Conditions

- Model : SIB5-1000S-C
- Socket : Clean Socket (2-Hole-0.2)
- Air Pressure : 0.3MPa
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Temperature & Humidity : $24^{\circ}C \pm 1^{\circ}C$, $40\% \pm 2\%RH$
- Charge Plate Capacitance : $20pF \pm 2pF$ (150 X 150mm)
- Frequency : 50Hz

SIB5S-C Series performance comparison with other model

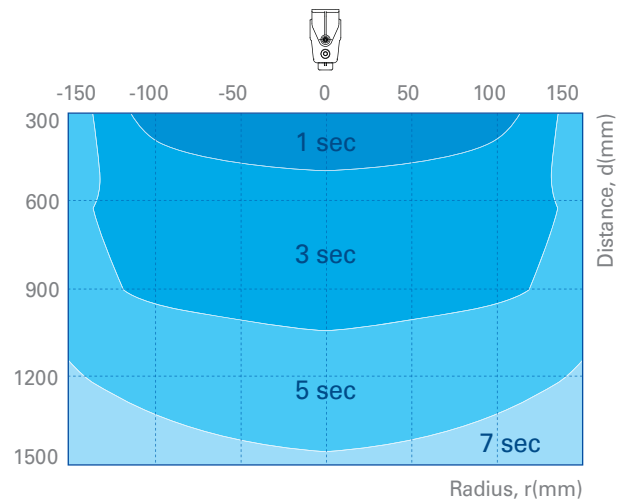
SIB4 Series



Test Conditions

- Model : SIB4-1000
- Socket : SIE-4
- Output Voltage : Pulse AC $\pm 10.5kVp-p$
- Air Pressure : 0.3MPa
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Temperature & Humidity : $24^{\circ}C \pm 1^{\circ}C$, $40\% \pm 2\%RH$
- Charge Plate Capacitance : $20pF \pm 2pF$ (150 X 150mm)
- Frequency : 30Hz

SIB7 Series



Test Conditions

- Model : SIB7-540
- Socket : SIE-4
- Output Voltage : Pulse AC $\pm 10.5kVp-p$
- Air Pressure : 0.3MPa
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Temperature & Humidity : $24^{\circ}C \pm 1^{\circ}C$, $44\% \pm 2\%RH$
- Charge Plate Capacitance : $20pF$ (150 X 150 mm)
- Frequency : 30Hz



Ion Blower



Static electricity is eliminated by using Corona high-voltage discharge technology.

Fan type ionizer with optimum aerodynamic design and fan speed control.

Ion Blower Products



SBL-12A

SBL-30W

SOB-S Series

SBL-18

Ion Blower

It is a static electricity elimination device that can be used for short to long distance by using a fan.

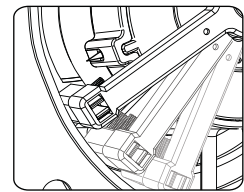
! Regular maintenance is required for normal performance and managing process. If maintenance is insufficient, it can affect process and cause abnormal operation.

SBL-12A

CE



Auto Cleaning Brush



Key Features

- Medium and small size Ion Blower
- Easy maintenance via automatic tip cleaning function **Patent**
- Easy separable one-touch rubber cover
- Fan speed control
- Automatic ion balance control **Patent**
- LED on when ion balance/Fan is abnormal
- With RMS, You can control up to 128 devices (Option) **Patent**

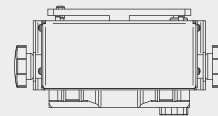
Specifications

Parameter	Description / Value
Input Power	DC 24V Adaptor (AC 110~220V, 50/60Hz, DC 24V, 1A)
Power Consumption	7.7W (Fan Speed Max.)
Current Consumption	320mA
Ion-Generation Method	Steady-State DC
Air Flow	4.25m³/min (Fan Speed Max.)
Noise Level	62dB (1,000mm, Fan Speed Max.)
Ion Balance	within ±5V (600mm, Maximum Air flow)
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Ozone(O3) Concentration	≤0.05ppm
Main Body Material	EGI
Electrode Material	Tungsten
Mounting Method	Desk Top
Weight	1.42kg
Function	Tip Cleaning, Auto Tip Cleaning
Alarm Function	Ion Unbalance Alarm, Fan Alarm
Interface	Remote On/Off, Run State, Alarm, Tip Cleaning, RS 485
Option	RMS (Real Monitoring System)
Warranty	1 year

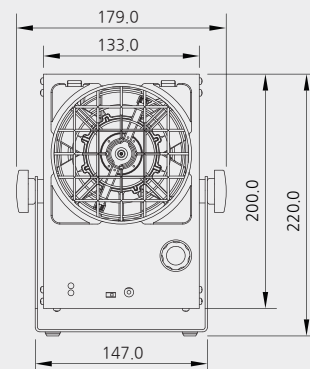
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Dimensions

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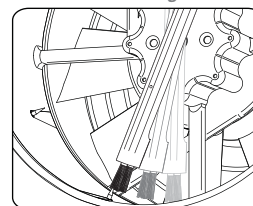
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SBL-30W



Auto Cleaning Brush



Key Features

- Large size Ion Blower
- Automatic ion balance control **Patent**
- Easy maintenance via automatic tip cleaning function **Patent**
- Fan speed control (45Steps)
- Interface compatibility with automation (PLC) **Patent**
- Ion unbalance / Fan abnormal buzzer alarm **Patent**
- With RMS, possible to check operation status in real time (Option) **Patent**

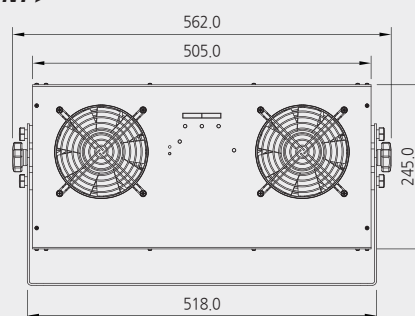
Specifications

Parameter	Description / Value
Input Power	AC 100 ~ 240V, 50/60Hz
Power Consumption	50W (Fan Speed Max.)
Current Consumption	227mA (AC 220V)
Ion-Generation Method	Steady-State DC
Air Flow	12.4m³/min (Fan Speed Max.)
Noise Level	68dB (1,000mm, Fan Speed Max.)
Ion Balance	within ±5V (600mm, Maximum Air flow)
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Ozone(O3) Concentration	≤0.05ppm
Main Body Material	Aluminum
Electrode Material	Tungsten
Mounting Method	Desk Top
Weight	6.2kg
Function	4 Step Fan Speed, Tip Cleaning, Auto Tip Cleaning
Alarm Function	Ion Unbalance Alarm, Fan Alarm
Interface	Remote On/Off, Run State, Alarm, Tip Cleaning, RS 485
Warranty	1 year

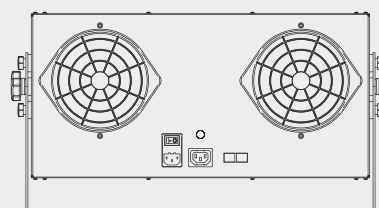
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Dimensions

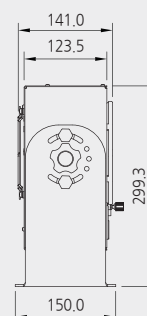
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SOB-S Series



► SOB-3S

Key Features

- Ionizing whole closed space through upper installation
- 2Fan(SOB-2S), 3Fan(SOB-3S), 4Fan(SOB-4S), 5Fan(SOB-5S) available for customer needs
- Automatic ion balance control **Patent**
- Slim size, Light-weight, Low-noise
- Easy maintenance via automatic tip cleaning function **Patent**
- Fan speed control (4Steps)
- Interface available with Automation (PLC) **Patent**
- Ion unbalance / Fan abnormal buzzer alarm **Patent**
- With RMS, possible to check operation status in real time (Option) **Patent**

Specifications

Parameter	Description / Value			
	SOB-2S	SOB-3S	SOB-4S	SOB-5S
Input Power	AC 100 ~ 240V, 50/60Hz			
Power Consumption	37W	47W	60W	75W
	Fan Speed Max.			
Current Consumption	168mA	213mA	272mA	341mA
	AC 220V			
Ion-Generation Method	Steady-State DC			
Air Flow	8.5m³/min	12.75m³/min	17.0m³/min	21.25m³/min
	Fan Speed Max.			
Noise Level	63dB	64dB	65dB	67dB
	1,000mm, Fan Speed Max.			
Ion Balance	within ±5V (600mm, Maximum Air flow)			
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH			
Ozone(O3) Concentration	≤0.05ppm			
Main Body Material	Aluminum			
Electrode Material	Tungsten			
Mounting Method	Ceiling or Wall Mount			
Weight	3.1kg	4.1kg	5.2kg	6.2kg
Function	4 Step Fan Speed, Tip Cleaning, Auto Tip Cleaning			
Alarm Function	Ion Unbalance Alarm, Fan Alarm			
Interface	Remote On/Off, Run State, Alarm, Tip Cleaning, RS 485			
Warranty	1 year			

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SBL-18



Key Features

- Small size Ion Blower
- Ion Balance within ±10V(SBL-108), within ±30V(SBL-18)(300mm)
- Small and light-weight Ion Blower that can be installed in numerous areas

Specifications

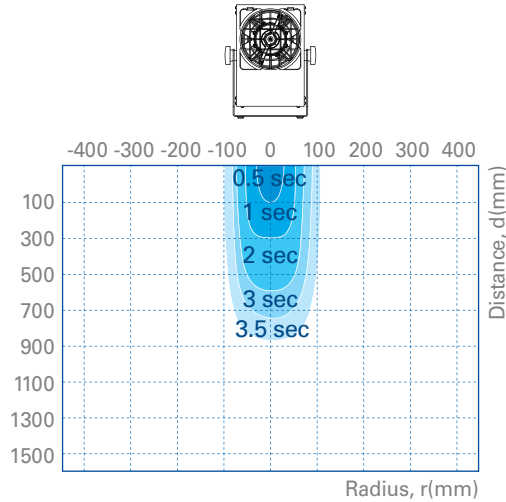
Parameter	Description / Value
Input Power	AC 110/220V, 50/60Hz
Power Consumption	18W (Fan Speed Max.)
Current Consumption	81mA
Ion-Generation Method	DC Type
Air Flow	1.9m³/min (Fan Speed Max.)
Noise Level	54dB (1,000mm, Fan Speed Max.)
Ion Balance	within ±30V (600mm, Maximum Air flow)
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Ozone(O3) Concentration	≤0.05ppm
Main Body Material	Non-Flammable ABS
Electrode Material	Tungsten
Mounting Method	Desk Top
Weight	0.8kg
Function	2 Step Fan Speed
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Decay Time Characteristics

Following graph shows Ion Blower performance

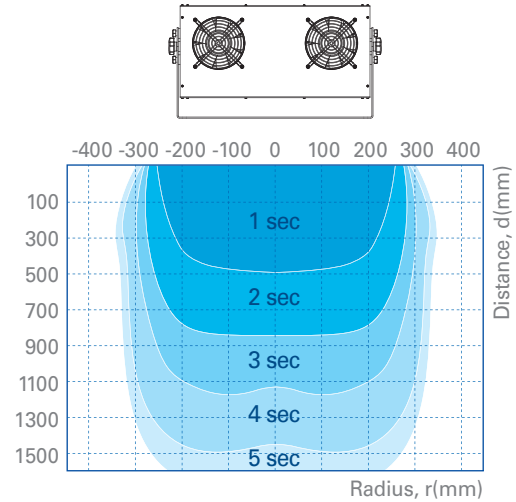
SBL-12A



Test Conditions

- Model : SBL-12A
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH

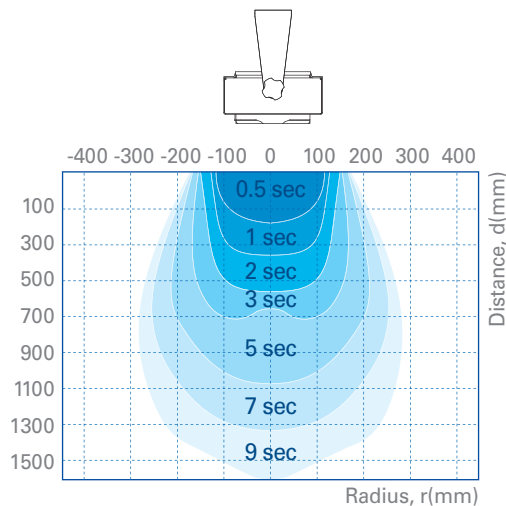
SBL-30W



Test Conditions

- Model : SBL-30W
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH

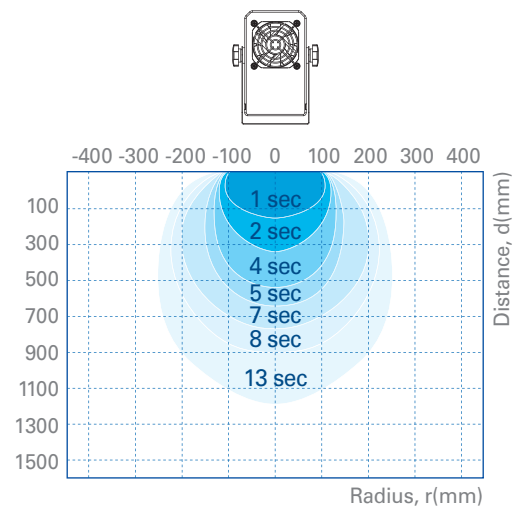
SOB-S Series



Test Conditions

- Model : SOB-3S
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH

SBL-18



Test Conditions

- Model : SBL-18
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH



Ion Nozzle



Static electricity is eliminated by using Corona high-voltage discharge technology.

By accepting high frequency type, this nozzle type shows stable ion balance and is suitable for air cleaning to get rid of contaminants and static from the surface.

Ion Nozzle Products

- *SPN-12/12S*
- *Fitting Tube*
- *SIG-30*

Ion Nozzle

It is a nozzle type static electricity removal device that minimizes discharge needle contamination.

! Regular maintenance is required for normal performance and managing process. If maintenance is insufficient, it can affect process and cause abnormal operation.

SPN-12/12S



▶ SPN-12



▶ SPN-12S

Key Features

- Mini size Ion Nozzle
- Infrared ray sensor Ion Nozzle (SPN-12S)
- Easy to set sensor sensitivity and operation time (SPN-12S) Patent
- Ion balance with in $\pm 15V$ (300mm / Air 0.3MPa)
- Ozone-proof material selected : Teflon Nozzle
- Tip cleaning cycle is extended by high frequency AC
- Possible to connect up to 5ea of SPN-12/12S by using Daisy Chain function (6 pole connector)
- Applying a bracket which can adjust angle
- Different Fitting tube is available depending on the working circumstance (Option) Patent

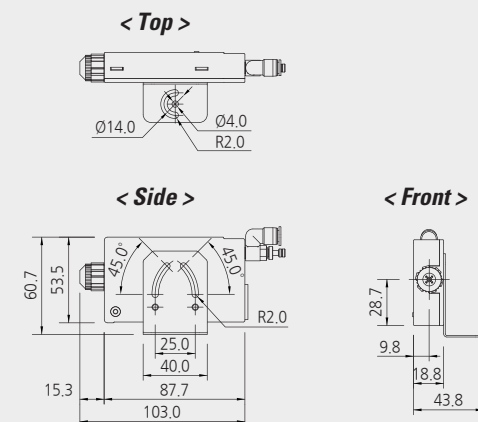
Specifications

Parameter	Description / Value		Remark
	SPN-12	SPN-12S	
Input Power	DC 24V		
Adaptor	Input	AC 100~240V, 50/60Hz, 1.7A	
	Output	DC 24V, 1A, 24W	
Power Consumption	1.2W	3.6W	
Current Consumption	50mA	150mA	AC 220V
Ion-Generation Method	High Frequency AC		Piezo
Air Purge Supply Pressure	0.1MPa ~ 0.6MPa		CDA, N2
Air Inlet	Ø6		
Ion Balance	Within $\pm 15V$		300mm
Operation Circumstance	0°C ~ +130°C (32°F ~ 266°F), 35% ~ 85% RH		
Main Body Material	Non-Flammable ABS		
Nozzle Material	Teflon		
Electrode Material	Tungsten		
Mounting Method	Bolt Mounting with Bracket		
Weight	80g	130g	
Sensor	-	Photoelectric Sensor	
Alarm Function	High Voltage Abnormal Alarm		
Interface	Alarm(High Voltage Abnormal)		
Warranty	1 year		

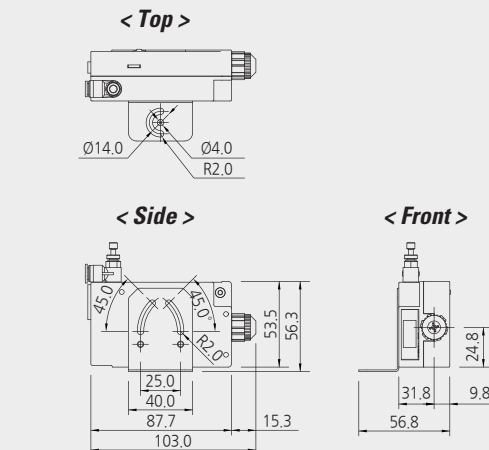
* The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Dimensions

SPN-12



SPN-12S



Fitting Tube



Key Features

- SPN-12/12S Option Items
- Optimized performance of Ion Nozzle
- Easy to use in special environment condition
- Custom build is available

- ① U Type Injector (UI)
- ② Bar Type Injector (BI)
- ③ Direct Injector Ø4 (DI)
- ④ Bar Type Injector-45° (BI-45)
- ⑤ Direct Injector-90° (DI-90)
- ⑥ Elbow Coupler (EC)
- ⑦ Tube Injector (TI)
- ⑧ Flexible Injector (FI)

※ You can find different ionizing performance if you use fitting tube.

SIG-30



Key Features

- Small size Gun type Ion Nozzle
- Ion balance within $\pm 10V$ (300mm)
- Ergonomically designed Ion Gun
- Identifying the particle/dust through LED light
- Durable cable that was tested more than 150,000times of three-point-flexure test
- Easy to disassemble the nozzle, simple/easy tip cleaning

Specifications

Parameter	Description / Value	Remark
Input Power	DC 24V	$\pm 5\%$
Power Consumption	1.8W (Lighting LED On)	
Current Consumption	75mA	DC 24V
Ion-Generation Method	High Frequency AC	
Air Purge Supply Pressure	0.1MPa ~ 0.6MPa(0.4MPa Recommendation)	CDA, N2
Ion Balance	Within $\pm 10V$	0.3MPa, 150mm
Operating Distance	50mm ~ (Non-Hazardous Locations)	
Operation Circumstance	5°C ~ +40°C(41°F ~ 104°F), 35% ~ 65% RH	No dewing
Ozone(O3) Concentration	$\leq 0.05\text{ppm}$	50mm
Main Body Material	ABS	
Electrode Material	Tungsten	
Hook Material	Stainless Steel	
Weight	198g	
Alarm Function	High Voltage Abnormal Alarm	
Accessory	AC Adaptor	
Warranty	1 year	

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Decay Time Characteristics

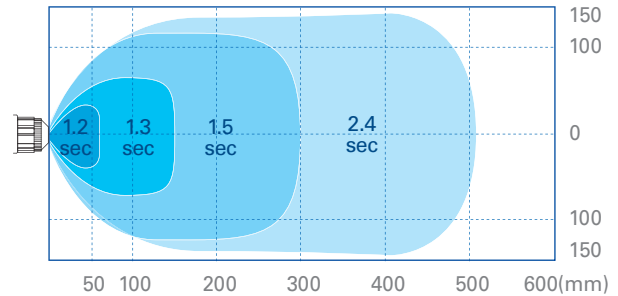
Following graph shows Ion Nozzle performance

SPN-12/12S

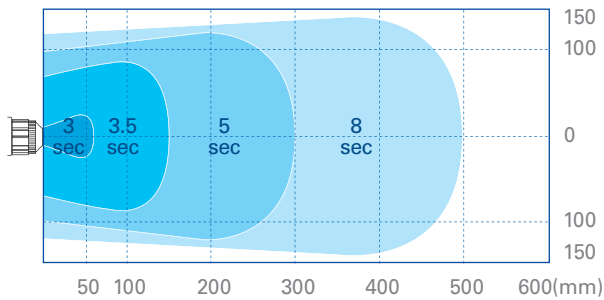
Test Conditions

- Model : SPN-12/12S
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH

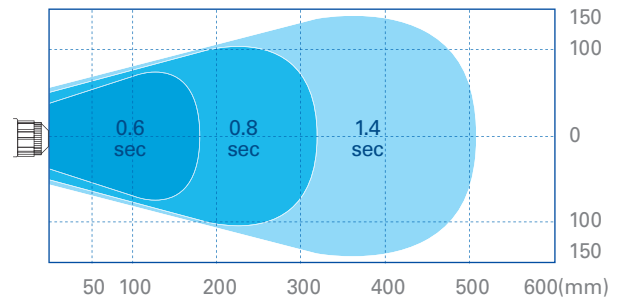
Air Pressure : 0.3MPa Standard Nozzle Mounted



Air Pressure : 0.1MPa Standard Nozzle Mounted



Air Pressure : 0.6MPa Standard Nozzle Mounted

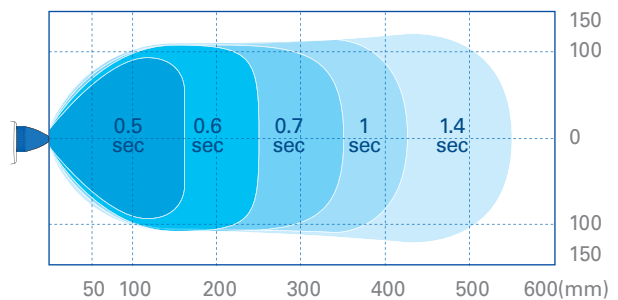


SIG-30

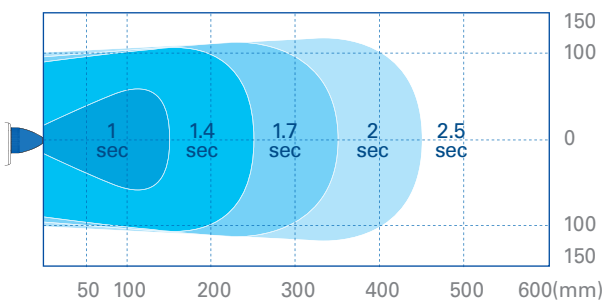
Test Conditions

- Model : SIG-30
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Charge Plate Capacitance : 20pF(150 X 150 mm)
- Temperature & Humidity : 24°C, 50%RH

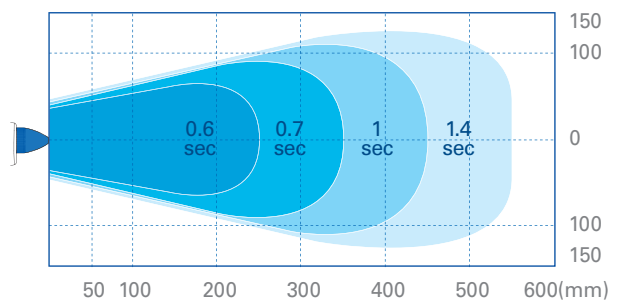
Air Pressure : 0.3MPa Standard Nozzle Mounted



Air Pressure : 0.1MPa Standard Nozzle Mounted



Air Pressure : 0.6MPa Standard Nozzle Mounted





MMS / RMS

Measuring Monitoring System / Real Monitoring System



MMS : A system capable of monitoring the constant voltage anywhere static electricity is generated

RMS: Management system that can check the ionizer operation status in real time

MMS & RMS ***Products***

- *EVM302/308*
- *SM-30*
- *SM-10*
- *SPE-100*
- *SICA-2*

MMS / RMS

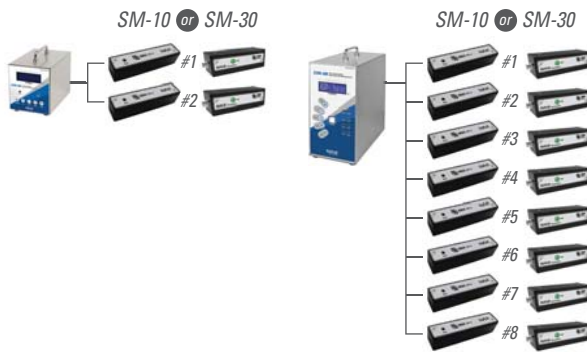
A system that can monitor the constant voltage and manage the abnormality of the constant voltage meter and ionizer.

EVM-302/308



▶ EVM-302

▶ EVM-308



Key Features

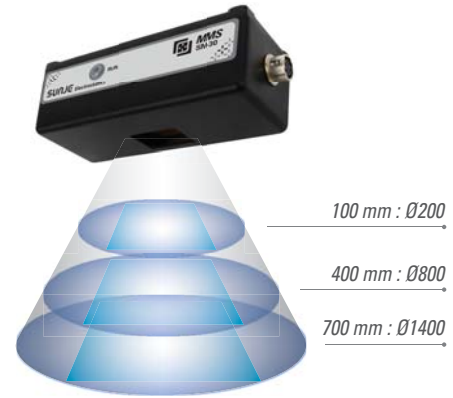
- Easy communication through PC, e.g. save and manage electric voltage data (S/W offers)
- EVM-302 : max. 2 sensors connection / EVM-308 : max. 8 sensors connection
- Use either SM-10 or SM-30 sensor
- Individual or multiple set-ups are available
- In display panel, user can see the actual data value in real time
- If there are any exceed voltage are detected, the alarm will be on

Specifications

Parameter	Description / Value	
	EVM-302	EVM-308
Input Power	AC 100V ~ 240V, 50/60Hz	
Power Consumption	15W	40W
Current Consumption (AC 220V)	68mA	181mA
Measuring Range	SM-10	Precision Mode : 0V ~ ±5kV / Wide Range Mode : 0V ~ ±40kV
	SM-30	Precision Mode : 0V ~ ±20kV / Wide Range Mode : 0V ~ ±60kV
Installation Distance for Sensor	SM-10	10mm ~ 100mm
	SM-30	100mm ~ 700mm
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH (Non-Condensing)	
Weight	2.48kg	5.5kg
Output Signal	Alarm Output	Alarm Output, RS-232 / RS-485 Communication (for EVM/EMS), CC-Link (Option), Wireless (Option)
Accuracy	±5%(F.S)	
Sensor (Option)	1 ~ 2ea	1 ~ 8ea
Warranty	1 year	

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SM-30

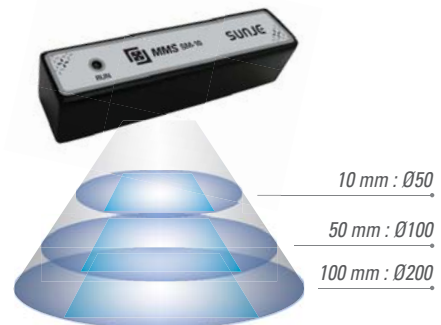


Performing coverage depending on installing distance

Key Features

- The most accurate and reliable electric voltage sensor
- Compact & contactless type sensor
- The world's first long-distance range measuring sensor (Max. 700mm)
- Measuring Range : ±20kV (Wide Range Mode ±60kV)

SM-10



Performing coverage depending on installing distance

Key Features

- Compact & contactless type sensor
- Possible to measure up to 100mm
- Measuring Range : ±5kV(Wide Range Mode ±40kV)

Specifications

Parameter	Description / Value	
	SM-10	SM-30
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH (Non-Condensing)	
Weight	60g	150g
Warranty	1 year	

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SPE-100 (New)



Key Features

- Contactless type electric voltage measuring device
- Measuring Range : 0V ~ ±19,999.9V
- No need of drift or zeroing
- By getting rid of error from charged air molecule/ion
- Offering reliable data with high sensitivity sensor

Specifications

Parameter	Description / Value
Range at 1"	0 to +/- 19,999.9 V
Resolution at 1"	0.1 Volt
Accuracy	+/- 2% of the reading
Outputs	Analog Output
Environmental	-1 C to 43 C (30°F to 110°F), 0-90% RH non-condensing
Meter Size	115 x 72 x 30 mm
Probe Size	31 x 63.5 mm
Probe Cable Length	74 cm (detachable 6 pin mini din connector)
Weight	156g
Power	1. Battery 9 Volt Alkaline ~6 hour life (included) 2. External 9VDC Power adapter (included)
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SICA-2



Key Features

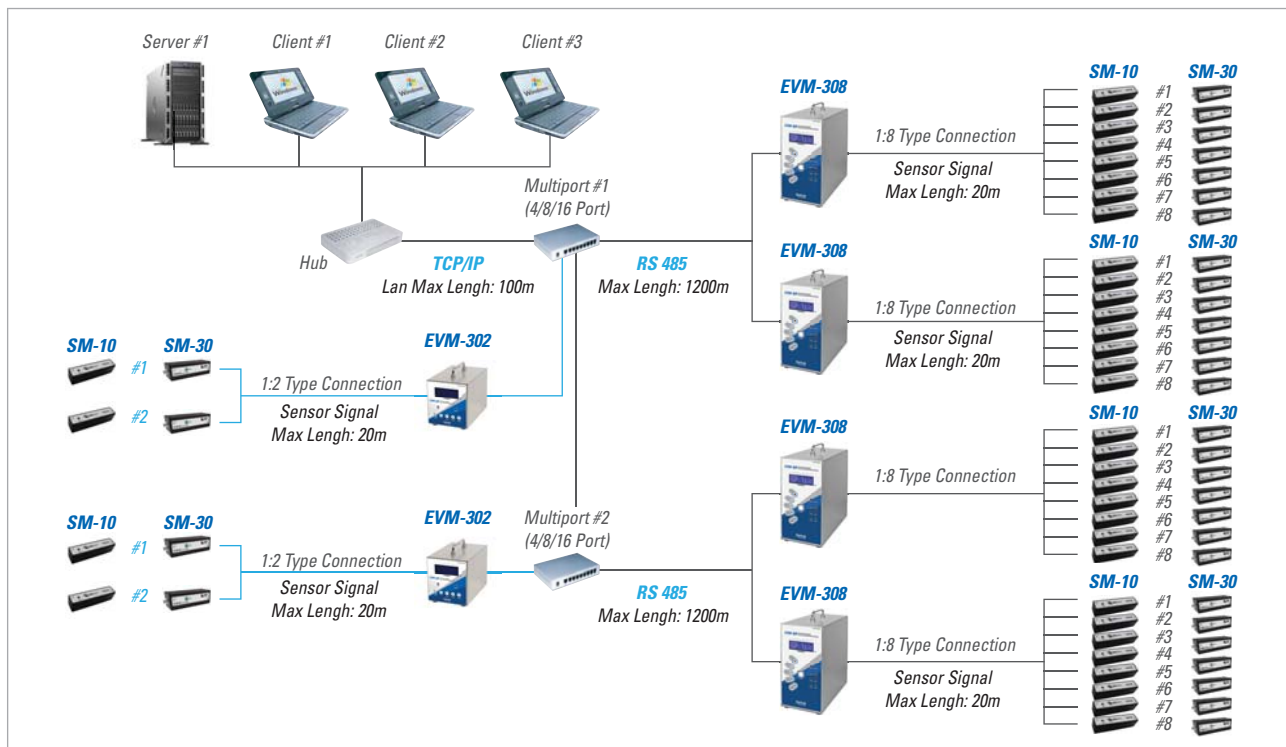
- Measures positive and negative air ions up to 200million ions/cc
- Meter Calibration/Re-zeroing functions are built-in
- Small and Light weight (6V alkaline battery)
- Measurement up to 15 continuous hours
- Peak hold mode displays the highest positive or negative value
- Power saving through the standby function
- Measuring positive and negative ions by selecting the polarity

Specifications

Parameter	Description / Value
Range / Resolution	2million or 200million Selectable Scales / 10(ions per cc)
Accuracy	+/- 20% with a repeatability 5%
Noise	20 ions / cc(1 second averaging)
Meter Size	197 x 102 x 45 mm
Weight	567g
Power	AA Alkaline Battery 4ea(~10 hour life) or AD Adapter
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

MMS (Measuring Monitoring System Block-Diagram)

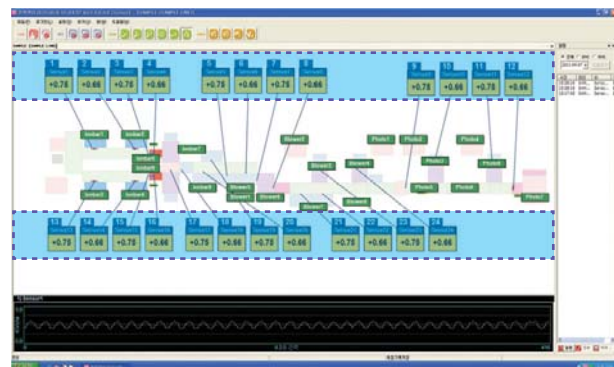


What's the MMS Program?

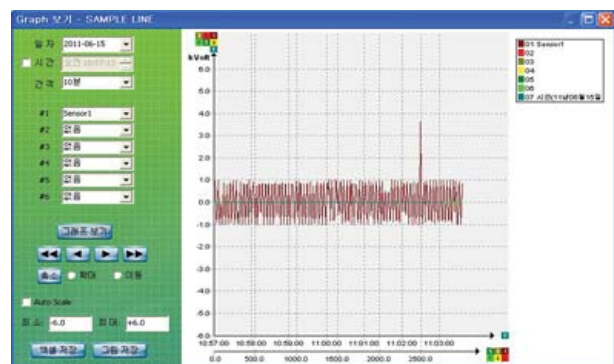
- EVM Series(e.g. Electro-voltage Measuring Device) can be connected to PC network in order to retrieve/analyze data in real time
- This system is suitable to be used in the area of FPD(OLED, LCD), semiconductor related, assembly line, printing, flimming, and etc. where any static problems are occurred
- Static management on the spot or in the office, identifying problem occurred point, long term data analysis etc. can be easily checked and managed

MMS Program Key Features

- Displaying the measured value in real-time
- Save data in Excel file
- Generate graphs via saved data loading
- Communication speed setup(at least 200ms)
- 1 server to 3 clients connection
- Data history management (Automatic file creation or deletion & Standard setup period : 30days)
- Categorized/visualized by product lines and machinery partitions
- Display Sensor & controller position
- Alarm history available by sensor
- When it alarms, data from 3 sec before alarm to 3 sec after alarm is separately saved
- When alarming, various external indicators will be on (e.g. LED, Beep, and Display)
- Daily report will be created automatically

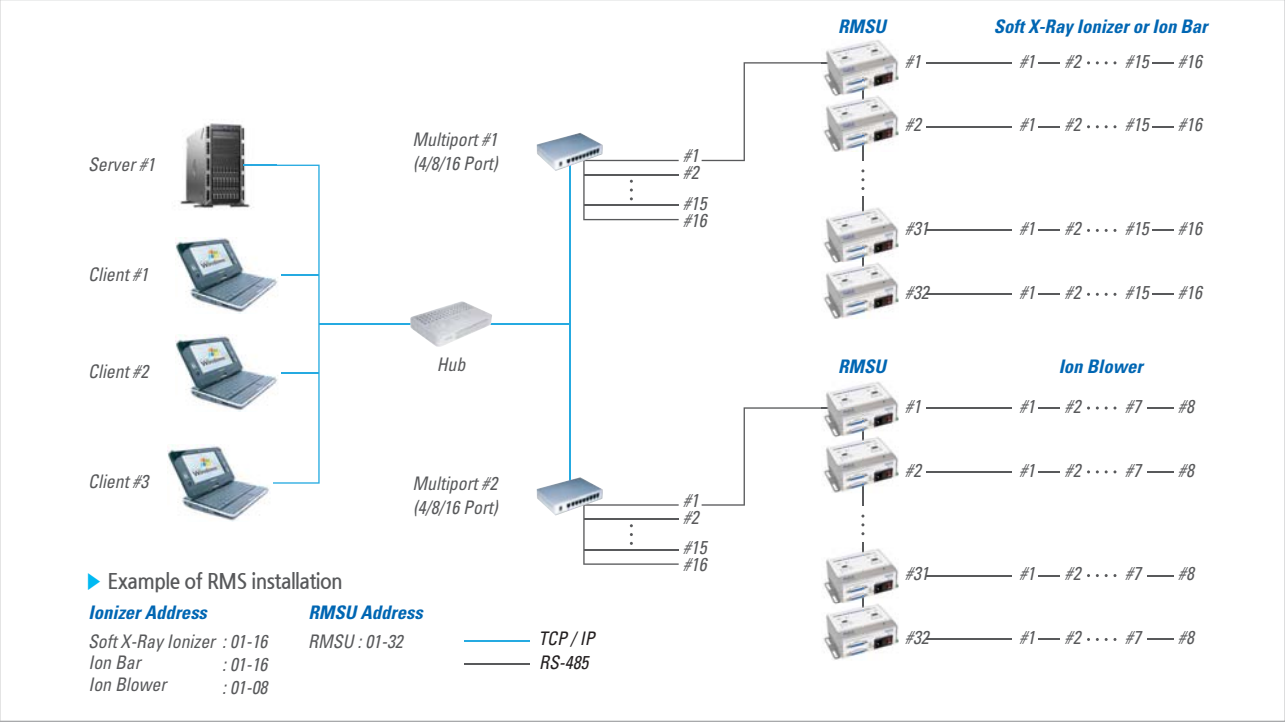


▶ MMS Program Main View



▶ Measurement Record View

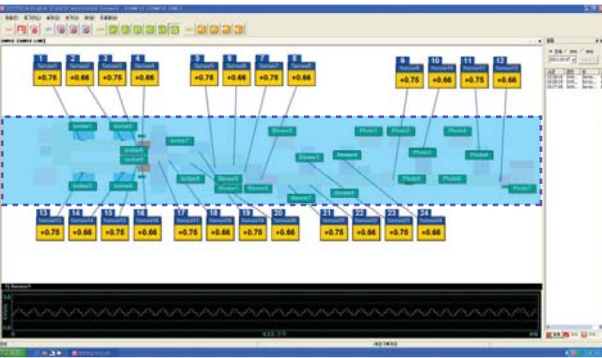
RMS (Real Monitoring System) Diagram Example)



※ Depending on the installing circumstances, the actual installation might vary

Key Features

- Identifying communication status between ionizers and PC
- Monitoring ionizers in real time (checking every 1 minute or less)
- Reporting ionizer operation status (e.g. Alarming)
- Real time report will be created either the period of time or group of ionizers
- Input (Detailed) individual information & search
- 1 server to 3 clients connection



► RMS Program Main View

RMS Controller (RMSU)

RMS (Real Monitoring System) is a network controlling device that works only with ionizers

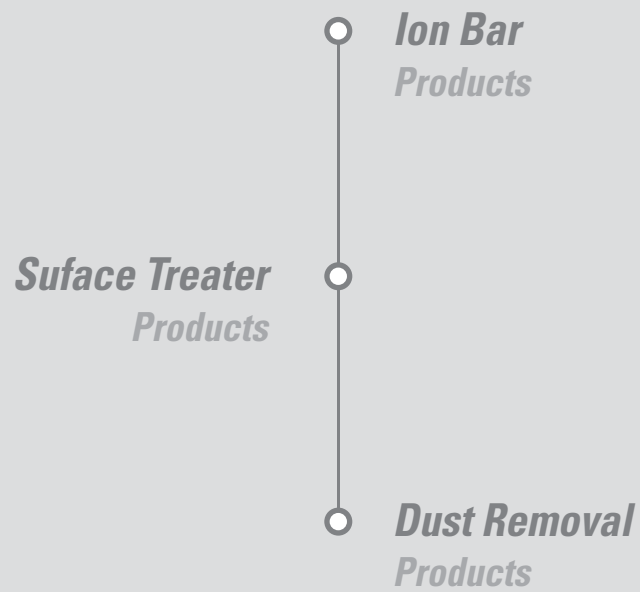


Specifications

Parameter	Description / Value
Input Power	AC 100V ~ 240V, 50/60Hz
Power Consumption	Max. 5.5W
Current Consumption	Max. 25mA (AC 220V)
Communication Mode	RS-485
Operation Circumstance	0°C ~ +50°C (32°F ~ 122°F), 35% ~ 85% RH
Main Body Material	EGI
Mounting Method	Bolt Mounting with Bracket
Weight	1kg
Interface	Remote On/Off, Alarm State, Interlock
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

General Industry





Ion Bar



Static electricity is eliminated by using Corona high-voltage discharge technology.

It is a bar-type static electricity removal device used in film, printing, packaging, and explosion-proof environments.

Ion Bar Products

- *SDB12 / 24 Series*
- *SIB4H Series*
- *SIB1(N) Series*
- *SSB1 Series*
- *SIB-ex Series*
- *SKBN / SSBN Series*
- *Decay Time*

Ion Bar

Bar type static eliminator with minimized corona discharge loss.

! Regular maintenance is required for normal performance and managing process. If maintenance is insufficient, it can affect process and cause abnormal operation.

SDB12 / 24 Series

NEW

All-in-one type
(Power supply built-in)



Key Features

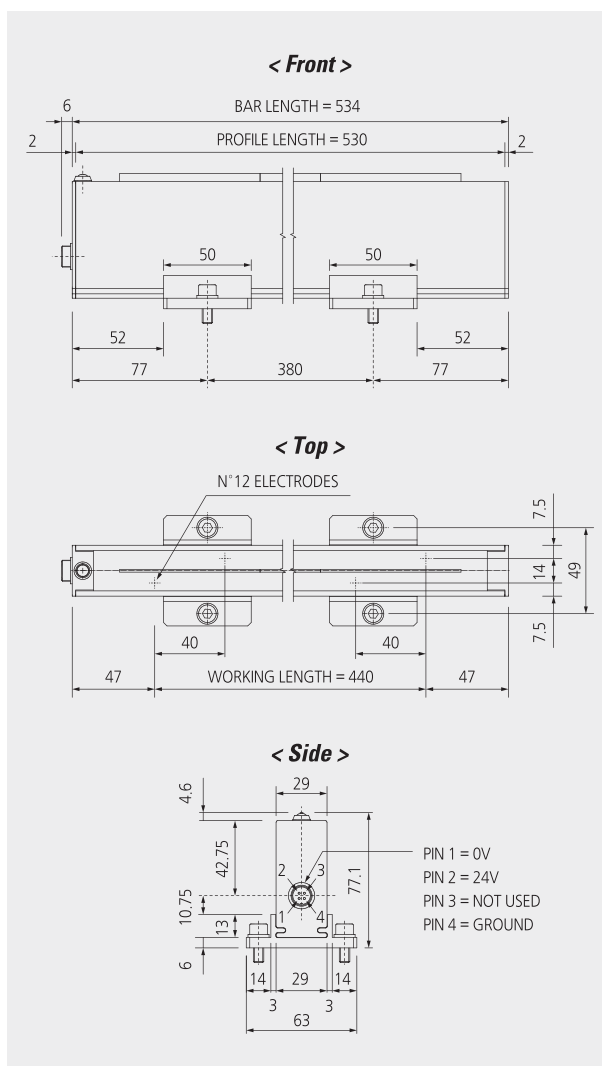
- High ion generation is useful for converting, printing, plastic machine and suitable for high speed, high charged object
- DC bar's stable output and high durability sends out the ions to the target and discharge it quickly
- All in one type bar for Film, Textile, Paper, Printing, Coating Plastic molding etc
- Shockless type bar protects unexpected shock
- Controller built-in type makes installation easy
- IP 66 rating water/dust proof

Specifications

Parameter	Description / Value	
	SDB12	SDB24
Input Power	DC 24Vdc ($\pm 10\%$)	
Current Consumption	0.5A (Max)	
Output Voltage	DC ± 12 kV	DC ± 25 kV
Overload Protection	2mA	
Primary Current	1.5mA	
Output frequency	5Hz ($\pm 1\%$)	1.6Hz ($\pm 1\%$)
Working Distance	50 ~ 300mm	200 ~ 500mm
Construction Material	Teflon and PVC	
Electrodes	Tungsten	
Fixing Holes	6 \varnothing	
Dimension	30 x 56 mm (W and H)	29 x 66 mm (W and H)
Max Width	4000mm	3000mm
Weight	0.7kg / meter	
Connection Operating	4-pole connector M10	5-pole connector M10
Circumstance	0 ~ 50°C, 35 ~ 85%	
Protection	IP 66 (Based on DOC)	
Warranty	1 year	

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Dimensions



SIB4H Series



ISO Class 1

NEW

All-in-one type (Power supply built-in)



Key Features

- The quantity of sockets is maximized so that faster and long distance static elimination is feasible
- Self-setting the ion generation rate is available
- Power jumping function among ion bars (Max. 4 ion bar links)
- Aerodynamic design nozzle socket reduces tip contamination
- One-touch in/out socket application
- Design for minimum air consumption (Newly designed socket minimized the air consumption but maximized the air pressure) **Patent**

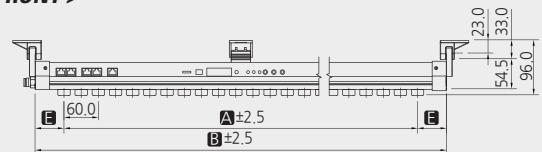
Specifications

Parameter	Description / Value
Input Power	DC 24V (±5%)
Power Consumption	Max. 14.4W
Current Consumption	Max. 500mA (DC 24V)
Ion-Generation Method	Corona Discharge Pulse AC
Air Purge Supply Pressure	0.1 ~ 0.5MPa (CDA, N2)
Air Purge Connection Port	Pipe Thread 1/8"
Ion Balance	Within ±30V (1,000mm)
Ozone(O3) Concentration	≤0.05ppm
Main Body Material	Non-Flammable ABS (Level V0)
Electrode Material	Standard : Tungsten / Option : Titanium, Poly Silicon
Electrode Replacement	Cartridge type
Operation Circumstance	0°C ~ +50°C (32°F ~ 122°F), 35%~85% RH
Mounting Method	Bolt Mounting with Bracket
Function	Remote Control
Adjust Function	Frequency [Hz]
	Voltage [Level]
	Duty Ratio [%]
	Auto Duty
Alarm Function	High Voltage Abnormal Alarm, Tip Cleaning Alarm (Setting)
Interface	Run State, Remote, RS485, Alarm (High Voltage Abnormal, Tip Cleaning)
Operating Distance	50 ~ 2,000mm
Option	RMS, SBP-RD (DC Power Supply)
Warranty	1 year

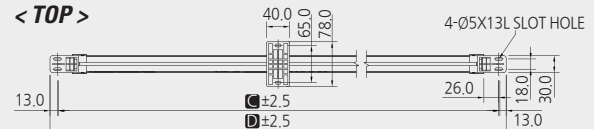
* The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Dimensions

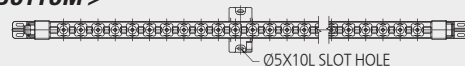
< FRONT >



< TOP >



< BOTTOM >



< SIDE >



No.	Model No.	Tip Q'TY	A	B	C	D	E	Middle BKT Q'TY
1	SIB4-800H	23	660	800	851	877	70	-
2	SIB4-900H	27	780	881	932	958	50.5	-
3	SIB4-1000H	31	900	1001	1052	1078	50.5	1
4	SIB4-1100H	35	1020	1121	1172	1198	50.5	1
5	SIB4-1200H	39	1140	1241	1292	1318	50.5	1
6	SIB4-1300H	43	1260	1361	1412	1438	50.5	1
7	SIB4-1500H	47	1380	1481	1532	1558	50.5	1
8	SIB4-1600H	51	1500	1601	1652	1678	50.5	1
9	SIB4-1700H	55	1620	1721	1772	1798	50.5	2
10	SIB4-1800H	59	1740	1841	1892	1918	50.5	2
11	SIB4-2000H	63	1860	1961	2012	2038	50.5	2
12	SIB4-2100H	67	1980	2081	2132	2158	50.5	2
13	SIB4-2200H	71	2100	2201	2252	2278	50.5	2
14	SIB4-2300H	75	2220	2321	2372	2398	50.5	2
15	SIB4-2500H	79	2340	2441	2492	2518	50.5	3
16	SIB4-2700H	87	2580	2681	2732	2758	50.5	3

SIB1(N) Series



Key Features

- External Controller Type Ion Bar
- Max. 4ea connections using external controller(SBP-14J4)
(SBP-07A2, SBP-11/11N : Max. 2ea / SBP-06 : Max. 1ea) **Patent**
- Small / Slim body → Easy to install in a narrow space
- Various length of ion bar for numerous installing environment

Specifications

Parameter	Description / Value
Ion-Generation Method	Corona Discharge Pulse AC
Air Purge Supply Pressure	≤0.5MPa (CDA, N2)
Air Purge Connection Port	Pipe Thread 1/8"
Ion Balance	within ±50V (1,000mm)
Operating Distance	50mm ~ 2,000mm
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 35% ~ 85% RH
Ozone(O3) Concentration	≤0.05ppm
Main Body Material	Non-Flammable ABS (Level V0), Stainless Steel
Electrode Material	Standard : Tungsten
	Option : Poly Silicon, Titanium
Electrode Replacement	Cartridge type
Mounting Method	Bolt Mounting with Bracket
Ion Bar Length	200mm ~ 2,600mm
High Voltage Cable	Insulation Cable 4m (UL3239_20kV - 1007AWG18)
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SSB1 Series



Key Features

- Possible to use in high temperature environment (130°C)
- Possible to apply to various working environment
- Small / Slim body → Easy to install in a narrow space
- Various length of ion bar for numerous installing environment
- Tip cleaning device (Option)

Specifications

Parameter	Description / Value
Ion-Generation Method	Corona Discharge
Rated Voltage	Pulsed AC 10kVpp ±7%(Max.) _ SBP-14J4/SBP-06 DC ±9kV ±7%(Max.) _ SBC-2PN
Structure	Direct-Coupled
Ion Balance	Within ±50V at pulsed AC (100mm)
Operating Distance	10mm ~ 250mm (Non Air)
Operation Circumstance	0°C ~ +130°C(32°F ~ 266°F), 35% ~ 85% RH
Ozone(O3) Concentration	≤0.05ppm
Main Body Material	Epoxy, MC Nylon (Level HB)
Cover Material	Aluminum
Electrode Material	Tungsten (Pitch : 30mm)
Cable Insulator Material	Silicon
Ion Bar Length	90mm ~ 2,708mm
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SIB-ex Series



Key Features

- The explosion-proof ionizer with ATEX certification for Europe and KGS certification for Korea
- Usable at explosion proof area
- No risk of explosion with low ignition energy
- No firing potential with using flame retardant material
- Aluminum and stainless steel frame structure

Specifications

Parameter	Description / Value
Ion-Generation Method	Corona Discharge AC (Capacity coupled)
Applied Voltage	AC 8kV(±7%), 50/60Hz
Max. Current	5nA (from emitter point earth)
Operating Distance	50mm ~ 200mm (Non Air Pressure)
Operating Temperature	0°C ≤ Tamb ≤ +40°C
Main Body Material	Aluminum, PVC, PA
Bracket Material	SUS
Electrode Material	SUS
Cable Insulator Material	PE, PVC
Ion Bar Length	100mm ~ 3,000mm (Step 100mm)
Cable Length	Max. 10m (Ion Bar to Controller)
Mounting Method	Ceiling & Wall Mount
Warranty	1 year
Atmospheric Pressure	80kPa ~ 110kPa
Certification Standard	EN 60079-0: 2009(KGS) EN 60079-18: 2009(KGS) EN 1127-1: 2007(ATEX)
Type of Protection	II 2 G Ex mb IIB T6(KGS) II 3 G IIB T(ATEX)
Certi Number	15-GA2B0-0748X (KGS) INERIS 15ATEX3018X (ATEX)

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SKBN / SSBN Series



Key Features

- Applicable in high humid circumstance
- Small / Slim body → Easy to install in a narrow space
- Capacity coupling protects electric shock (shockless type)
- Stop function if abnormal high voltage occurs **Patent**
- You can adjust input voltage depending on the installation environment (When connecting SBP-07A2) **Patent**

Specifications

Parameter	Description / Value
Compliant Standards	Technical Recommendations of the Research Institute of Industrial Safety
Rated Voltage	AC 7kV ±7% (Max.) / 50-60Hz
Structure	Capacitive-Coupled (Shockless Type)
Ozone(O3) Concentration	≤0.05ppm
Operation Circumstance	0°C ~ +50°C (32°F ~ 122°F), 35% ~ 85% RH
Material	Main Body
	Cover
	Electrode
	Cable Insulator
	Flexible Tube
	PBT (Polybutylene Terephthalate)_Level V0
	Aluminum
	SUS 304
	PVC (Polyvinyl Chloride)
	PA (Polyamide)_Level V0
Operating Distance	20 ~ 250mm (Non air Pressure)
Mounting Method	Ceiling & Wall Mount
Weight	About 0.6kg/m (Without H/V Cable)
Tip Cleaning Cycle	1 week (Electrode Cleaning)
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Power Controller

Power Controller for Ion Bar

SBP-07A2

For SIB1(N), SSB1, SSBN, SKBN, SIB-ex Series



Specifications

Parameter	Description / Value
Input Power	AC 100V ~ 240V, 50/60Hz
Power Consumption	33W
Output Voltage	AC 4kV ~ 7.5kV(±7%), 55Hz(±5Hz), below 5mA Ion Balance(Offset) : DC -150V ~ +550V 100V Digital step adj. Analog volume adj.
Output Port	2 Ports
Operation Circumstance	0°C ~ +50°C(32°F ~ 122°F), 10% ~ 90% RH (No Condensation)
Main Body Material	EGI
Size	207.0 x 180.4 x 118.8 mm
Weight	5kg
Mounting Method	Desk Top or Wall Mount
Alarm Function	High Voltage Abnormal Alarm
Interface	Remote, Run/Alarm State
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SBP-08A1ex

For SIB-ex Series



Specifications

Parameter	Description / Value
Input Power	AC 220V, 50/60Hz
Power Consumption	Max 24.2VA (110mA)
Output Voltage	AC 8kV ±10%(Max)
Short Circuit Current	≤ 5mA
Output Port	1 Port
Material	Cover Aluminum 6061 T6
	Cable Gland Aluminum and Stainless Steel 316(L)
	Inner Plate Aluminum 5051
Weight	10kg
Mounting Method	Desk Top or Wall Mount
Ground Method	"0"-Rug(4mm²), Overall Wiring
Protection	Circuit Breaker enabled
Warranty	1 year
Installation Standards	KS C IEC 60079-14
Type of Protection	Ex d IIB T6

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

SBP-06

For SIB1(N), SSB1 Series



Specifications

Parameter	Description / Value
Input Power	AC 100V ~ 240V, 50/60Hz
Power Consumption	16W
Current Consumption	72mA (AC 220V)
Output Port	1 Port (1P), 2 Ports (2P)
Main Body Material	EGI
Size	168.0 x 210.0 x 71.2 mm
Weight	1.42kg
Mounting Method	Bolt Mounting with Bracket
Adjust Function	Duty Ratio [%] : 40 ~ 60
Warranty	1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

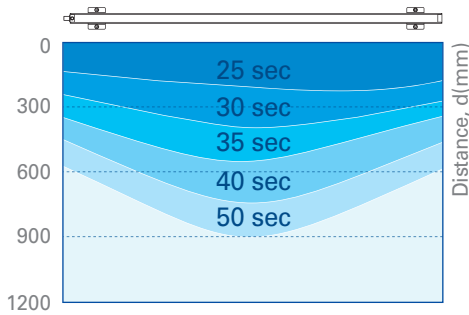
Decay Time Characteristics

Following graph shows for General Industry Ion Bar performance

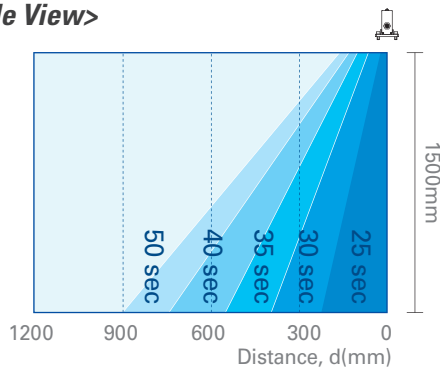
Room Ionizer Type

SDB24 Series

<Top View>



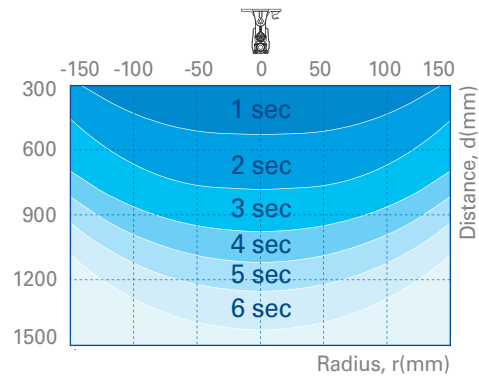
<Side View>



Test Conditions

- Model : SDB24-2530
- Air Pressure : Non
- Vertical Distance : 1,500 [mm]
- Horizontal Distance : 0, 100, 200, 300 ~ 1,000[mm]
- Measuring Equipment : Trek CPM-158A
- Temperature & Humidity : 26°C ± 1°C, 47% ± 2%RH

SIB4H Series



Test Conditions

- Model : SIB4-1600H
- Socket : SIE-4E
- Air Pressure : 0.3MPa
- Decay Time : ±1,000V to ±100V
- Temperature & Humidity : 24°C ± 1°C, 40% ± 2%RH
- Charge Plate Capacitance : 20pF ± 2pF (150 X 150mm)
- Frequency : 50Hz

Roll to Roll Type

SDB12 Series

Distance (mm)	Speed (m/min)				
	10	30	60	100	150
100	± 130V	± 180V	± 240V	± 280V	± 300V
200	± 170V	± 220V	± 280V	± 310V	± 340V
300	± 200V	± 250V	± 320V	± 370V	± 390V

SDB24 Series

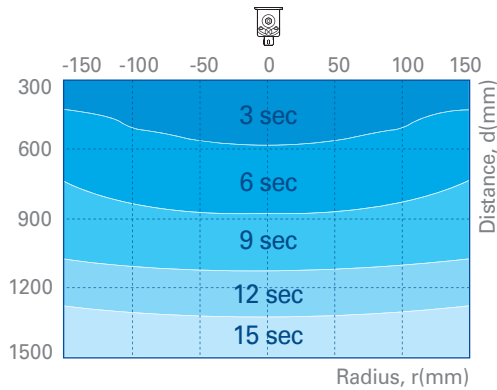
Distance (mm)	Speed (m/min)				
	10	30	60	100	150
400	± 210V	± 240V	± 280V	± 360V	± 450V
500	± 290V	± 330V	± 370V	± 480V	± 610V
600	± 340V	± 410V	± 350V	± 650V	± 780V
700	± 420V	± 550V	± 680V	± 800V	± 950V

SIB4H Series

Distance (mm)	Speed (m/min)				
	10	30	60	100	150
100	± 160V	± 200V	± 280V	± 320V	± 350V
200	± 240V	± 270V	± 320V	± 360V	± 400V

- Equipment : Our laboratory equipment (Rewinder)
- Material : PE film
- Air Pressure : Non
- The above value is Peak Voltage

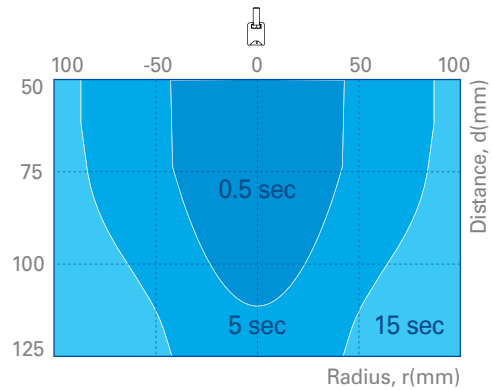
SIB1(N) Series



Test Conditions

- Model : SIB1-160A / SBP-11N
- Socket : SIE-1
- Output Voltage : AC 10.5kVp-p(P-06, N-06)
- Air Pressure : 0.3MPa
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Temperature & Humidity : $24^{\circ}C \pm 1^{\circ}C$, 40% $\pm 2\%$ RH
- Charge Plate Capacitance : $20pF \pm 2pF$ (150 X 150mm)
- Frequency : 30Hz

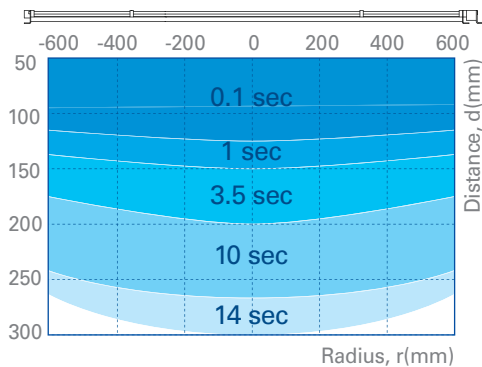
SSB1 Series



Test Conditions

- Model: SSB1-2700 / SBP-14J4
- Socket : None(Corona Tip : Tungsten)
- Air Pressure : None Air Pressure
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Temperature & Humidity : $24^{\circ}C \pm 1^{\circ}C$, 40% $\pm 2\%$ RH
- Charge Plate Capacitance : $20pF \pm 2pF$ (150 x 150mm)
- Frequency : 30Hz

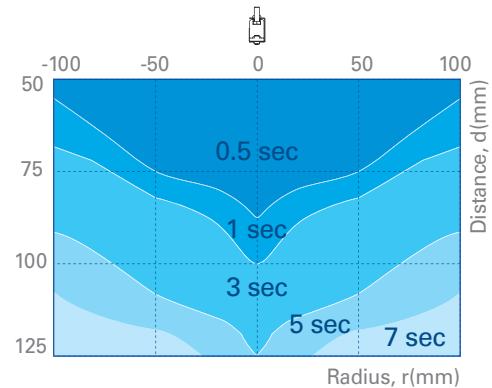
SIB-ex Series



Test Conditions

- Model: SIB-1600ex
- Socket : None(Corona Tip : SUS 304)
- Air Pressure : None Air Pressure
- Decay Time : $\pm 1,000V$ to $\pm 200V$
- Temperature & Humidity : $24^{\circ}C \pm 1^{\circ}C$, 40% $\pm 2\%$ RH
- Charge Plate Capacitance : $20pF \pm 2pF$ (150 x 150mm)
- Frequency : 60Hz

SKBN / SSBN Series



Test Conditions

- Model: SKB-700 / SKP-101
- Socket : None (Corona Tip : SUS 304)
- Output Voltage : AC 5kV ~ 7kV $\pm 7\%$ (Max.)
- Air Pressure : None Air Pressure
- Decay Time : $\pm 1,000V$ to $\pm 100V$
- Temperature & Humidity : $24^{\circ}C \pm 1^{\circ}C$, 40% $\pm 2\%$ RH
- Charge Plate Capacitance : $20pF \pm 2pF$ (150 X 150mm)
- Frequency : 60Hz

Connectable Products

This table shows applicable Ion Bars to the controller by model

Controller	Ion Bar				
	SDB 12/24 Series	SIB1 Series	SSB1 Series	SIB-ex Series	SKBN / SSBN Series
SBP-07A2	All-in-one type	●	●	●	●
SBP-08A1ex				●	
SBP-06		●	●		



Surface Treater



Surface treatment solution for maximizing hydrophilicity, adhesion, printing on the surface.
(Made to order)

Surface Treater ***Products***

- *SST*
- *COTREX*
- *PLATEM*
- *LABOS*
- *MOBIOS*

Radical Type

By combusting special organic compound in the flame, it maximizes hydrophilicity, adhesion, printing.
Also, this eco-friendly machine has advantage such as applicable to 3D material, requiring low maintenance fee.

SST



Key Features

- Carbon Radical can improve the surface which is difficult to apply corona or plasma treatment
Polymer : PP, PE, PET, PBT, FRP, Carbon fiber, Thermosetting resin, Thermoplastic elastic body etc.
Metal : Fe, Stainless steel, Al, Mg, Ti, Zn, Sn etc.
Inorganic material : glass, ceramic, standard inorganic substance etc.
- Available for various material surface treatment
- Longer hydrophilic maintaining period than plasma, corona, UV treatment
- Less maintenance cost and fast speed of surface treatment
- 3D material applicable, high efficiency

Specifications

Parameter		Description / Value
Input Power		3 phase 440V
Power Consumption		5kW
Dimension		Customized
Weight		Customized
Solution & LPG	Special Solution	About 8 ~ 16g / hr
	LPG	About 500 ~ 700g / hr
	Air	Dry Air
Burner (Based on Inner Flame)		Max. 200mm
Function		PLC / Alarm / On&Off Signal Communication
Warranty		1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.
※ Special solutions and LPG may differ depending on the usage time.
※ Manufacturer does not offer LPG or Air.

SST (Moving Type)

NEW



Key Features

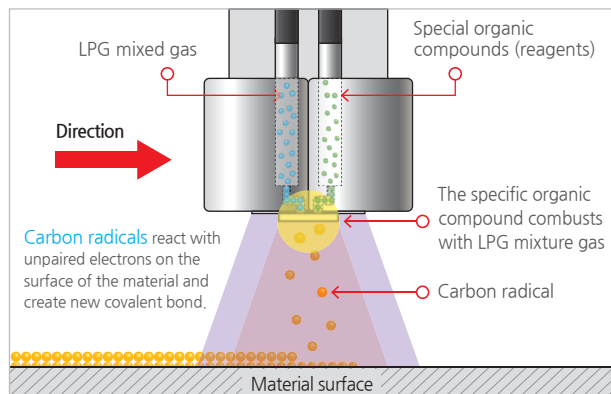
- A mobile type that is not limited to the size or shape of the material and allows surface treatment without space restrictions while the operator moves
- All in one Type (Built-in LPG, Air Compressor)
- Simple interface and system operation
- Can be used for surface treatment of various materials
- Equipped with gas detector and automatic fire extinguishing device

Specifications

Parameter		Description / Value
Input Power		220V
Power Consumption		2kW
Dimension		700 x 700 x 1,239 mm
Weight		120 kg
Solution & LPG	Special Solution	About 4 ~ 6g / hr
	LPG	About 200 ~ 300g / hr
	Air	Air Compressor
Burner (Based on Inner Flame)		Max. 100mm
Function		Alarm / Moving Type / Burner Cable 3m
Warranty		1 year

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.
※ Special solutions and LPG may differ depending on the usage time.

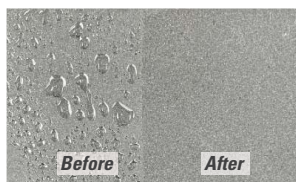
Principle



1. Carbon radical (C-OH3) generation (Gas Air special reagent)
2. Gives hydrophilic groups to the material surface (Covalent bond)
3. Increased adhesion, painting, and printing effects (Hydrogen bonding)

Hydrophilicity Comparison

▶ Glass



▶ PP



▶ Copper



▶ SUS



(*Dyne level of water : 70 dyne and more)

Performance comparison by processing method

Classification	Glass	PP	HDPE	Steel	AL
Current Dyne	35	40	38	34	40
After Corona Treat	35	46	46	34	40
After Flame Treat	35	52	50	34	46
After SST	73 ↑	73 ↑	73 ↑	73 ↑	73 ↑

[Unit : Dyne]

Application

▶ Adhesion Tech

- Adhesion for silicon materials
- Adhesion for engineering plastics
- Adhesion for plastics and metals
- Adhesion for plastics and glasses (ceramics)

▶ Printing Tech

- Direct digital printing for plastics
- Direct digital printing for metals and glasses (ceramics)
- Other application : screen, web and pad printing

▶ Coating Tech

- Coating for metal such as Mg, Al, etc
- Coating for rubber, engineering plastics
- Free primer coating for PP, PE
- Coating for inorganic compounds and glass

Advantage

▶ Applicable for various type of surface treatment

- Special flame improve to make hydrophilic surface on metal and its alloy, and oxidative surface on metal. (Just only, protective oxidation surface)
- It improve to make hydrophilic surface on polymers and silicon compounds without polarity.
- It improve to make hydrophilic surface on ceramics and glass, it is difficult other method.

▶ Eco Technology

- To make hydrophilic surface does not use acid and base. (Excluding washing)
- To make hydrophilic surface does not use VOC and a dangerous agents. (Volatile Organic Compound)

▶ Improvement of Productivity and cost reduction

- Very fast speed on surface treatment (30 - 1,000m/min)
- It is not necessary other apparatus, just Special flame (Air compressor, LPG gas or LNG gas)
- Just need Air, Gas and Special solution

▶ The other

- Extend to use the water coatings, water Inks
- Remove the Primer process
- Adhesion among the difference of materials
- Customize & Sample Test

Corona Type

It is a surface treatment machine that changes the characteristics of the material's surface using corona discharge.

COTREX



Key Features

- Suitable for the fast process, or mixed type of film
- Special designed electrodes and with 14 pins higher performance
- Able to maintain high dyne level, keep regular air gap
- Minimizing the issue about expansion, exothermic symptom during corona treatment
- Complete ozone removal with ozone emission system
- Easy roll replacement (Replacing only one screw)

Specifications

Parameter	Description / Value
Available Widths	1.200-3.800mm unit frame 20mm thickness
Speed of the line	1-250m/min
Sides to be treated	1-2-4
Type of electrodes	Aluminium or stainless steel 5-7-10-12-14 points of discharge segmented thickness 10, 5, 3, 2mm
Roller covering	Silicone Rubber thickness 3mm
Roller diameter	ø120-ø150mm
Types of application	Blown extrusion

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

PLATEM



Key Features

- Optimized for high speed converting
(available to 600m/min speed of elastic film)
- Suitable for Plastic, Metalized film, Rotogravure, Laminating machine
- 9 ceramic electrodes supply high voltage equally and lead the best performance for a long period

Specifications

Parameter	Description / Value
Available Widths	800-2000mm
Speed of the line	1-600mts × min
Sides to be treated	1-2
Type of electrodes	Ceramic tubes - aluminium blade, segmented or fix blade
Roller covering	Ceramic, vulcanised sleeves, Silicone sleeves
Cartridges	1 or 2 with 3-4-5-6-7-8-9 ceramic tubes
Roller diameter	ø200
Types of application	Flexo, rotogravure, laminator, extrusion coating lines

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

LABOS



Key Features

- Suitable for label printing
- Suitable for narrow web, long size high quality printing
- High efficient ceramic electrode
- Easy replacement with cartridge electrode
- Able to upgrade electrodes to 4~6

Specifications

Parameter	Description / Value
Available Widths	100 to 600mm
Speed of the line	1-300mts × min
Sides to be treated	1
Type of electrodes	Ceramic tubes
Roller covering	Ceramic
Cartridges	1 with 3-4-5-6 ceramic tubes
Roller diameter	φ120
Types of application	Converting

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

MOBIOS



Key Features

- Corona treater for the sheet (non-elastic)
- Available for treating single or double side
- Possible to choose one side to treat during the double side version (you can choose it through the generator)
- Easy film moving by applying air pressure system
- Automatic air gap balance even the material thickness is changed
- Able to select Fixed or Movable type depending on the sheet thickness

Specifications

Parameter	Description / Value
Available Widths	800 to 2600mm
Speed of the line	1-30mts × min
Sides to be treated	1-2
Sheet thickness	1-max 5mm
Roller covering	Silicone sleeves
Roller diameter	φ150

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.



Dust Removal



This is made for removing non-adhesive particle and consists of air knife, dust collecting hood and ionizer.

Air knife removes particles and collects it.

Dust Removal Products

- *SCH Series*
- *SCB Series*
- *SCT Series*
- *SCV Series*
- *Turbo Clean*

Non Contact Type

It is a device that removes non-stick foreign matter.

SCH Series

Purpose : To remove non-adhesive particle

Composition : Brush, Air knife, Dust collecting hood, Ionizer

How To Remove : First brush, Second air knife



Key Features

- Air knife installed for brush cleaning
- Brush RPM Control system attached
- Convenient control for brush height and replacement
- Compact size from profile structure
- No electrostatic with installed ionizers

Description

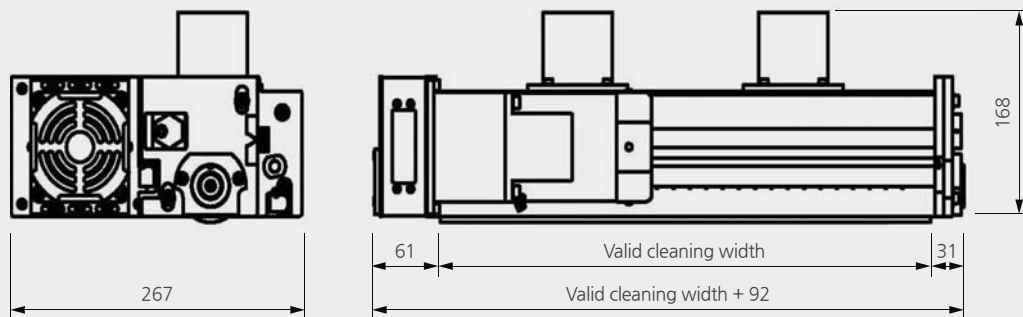
- Contact + Non Contact Type Dust Removal
- Double removal available (1st brush and 2nd air knife)
- Removable for Non adhesive or less adhesive particle

Specifications

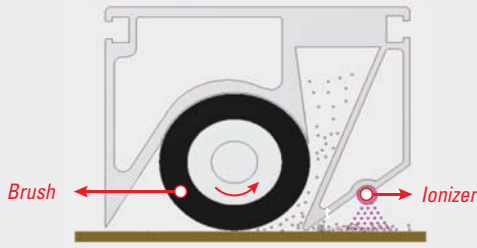
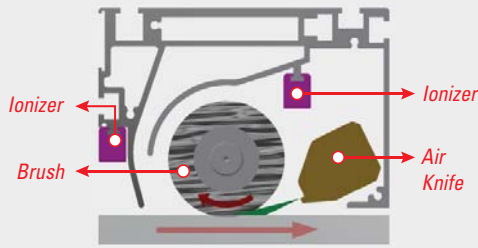
Parameter	Description / Value
Application	Bobbin / LED Lamp Trim Process / Belt Conveyor / Steel Winding Or Zinc Plating / PCB Substrate / Glass Fiber / Furniture etc.
Valid Cleaning Width (mm)	50 ~ 2,700mm
Size	(Dust Removal Valid Width+92mm) × 267mm × 168mm [Length × Width × Height]
Brush Size	Ø 60
Brush RPM	0 ~ 400 RPM
Brush Height Control	±6mm available
Ionizer	2ea
Removing Tool Type	Air Knife + Brush
Option	Dust Collector / Utility Parts / Control System

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.




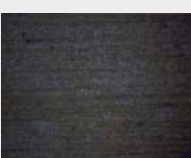
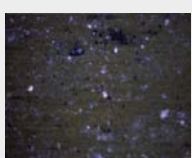
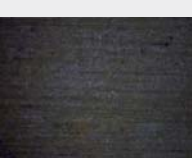
Dimensions



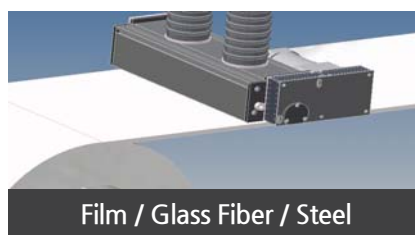
Feature Comparison

Parameter	Standard Type (Other Company)	SCH Series (SUNJE)
Concept Image		
Capacity	Over 20~50 μ m	Over 10~15 μ m
Ionizer	1ea	2ea
Removing Tool	Brush	Brush + Air Knife 1st brush (contact type) 2nd Air knife (non contact type)
Dust Chamber Structure	Slit (Gap:6mm) + Inverted Triangle Type	Slit (Gap:15mm) + Streamline Type (based on air foil principle)
Feature	<ul style="list-style-type: none"> ▶ Some area still remains particle after using brush ▶ If the ionizer is located in improper position, this can bring particle drop on removal zone ▶ Narrow width of chamber brings the limit of collecting dust 	<ul style="list-style-type: none"> ▶ Double removal available ▶ Air knife makes no dead zone after brushing ▶ With the air knife position changed, it prevents particle drop to removing zone

Test Image

No.	Before Removal	Input Particle	After Removal	Test Condition And Result
1				<ul style="list-style-type: none"> ▶ Application : LED Lamp ▶ Particle Type : Aluminum ▶ Overlap Amount : 1mm ▶ Brush RPM : 200 ▶ Result : No particle ※ Adhesive Particle Test
2				<ul style="list-style-type: none"> ▶ Application : Bobbin ▶ Particle Type : Mixed ▶ Overlap Amount : 1mm ▶ Brush RPM : 200 ▶ Result : No Particle

Application



TSP Camera Lens Cleaning / TSP Camera Module Cleaning / TSP Cover Glass Cleaning / Lumina Film cleaning / Optic film cleaning / Steel plate cleaning / Laser machine table cleaning / LED Lamp Cleaning / Automotive air conditioning panel cleaning

SCB Series

Purpose : To remove non-adhesive particle

Composition : Air knife, Dust collecting hood, Ionizer

How To Remove : Air knife separates the particle and collects it



Key Features

- High efficient air knife uses less air
- Easy control for air knife angle and height
- Compact size with profile structure
- Zero Electrostatic with installed ionizer

Description

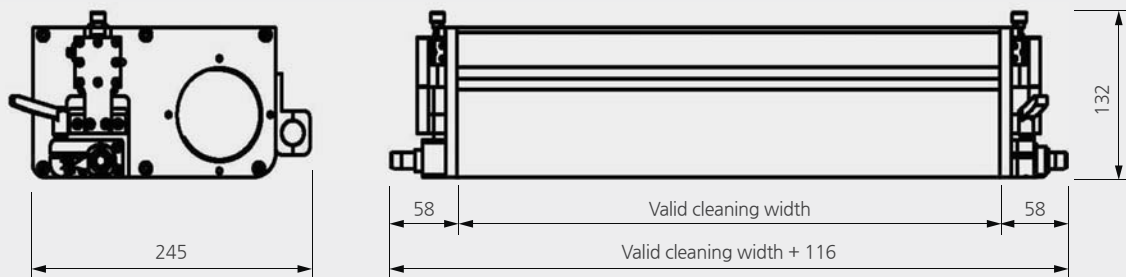
- Non Contact Type Dust Removal
- Maximize the performance using vacuum force formed between the object and dust removal and high pressure air
- Matching direction of air spray and the dust collection brings excellent performance
- Excellent cleaning with uniform air spray to the front

Specifications

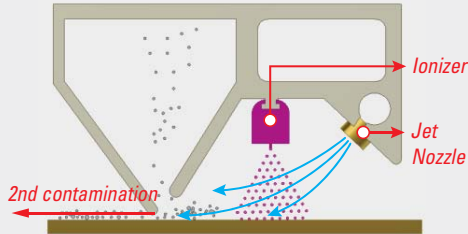
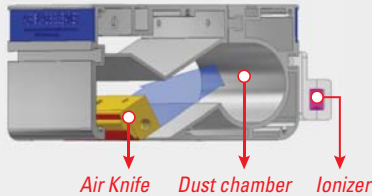


Parameter	Description / Value
Application	Glass / Film / Printing Front End / Laminating / Cutting Back End / Molding Injection Back End / Steel Winding And Anodizing / Furniture etc.
Valid Cleaning Width (mm)	50 ~ 2,700mm
Size	(Dust Removal Valid Width+116mm) × 245mm × 132mm [Length × Width × Height]
Cleaning Tool Height	Control 0~5mm
Removing Tool Type	Air Knife
Removing Tool Angle	0~90degree (goniometer attached)
Ionizer	1ea
Dust Removal Body	Profile Structure
Option	Dust Collector / Utility Parts / Control System

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

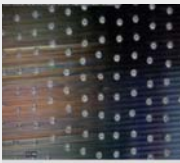

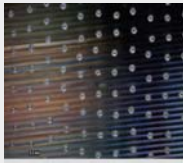

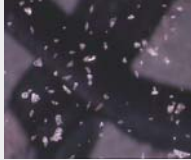

Dimensions



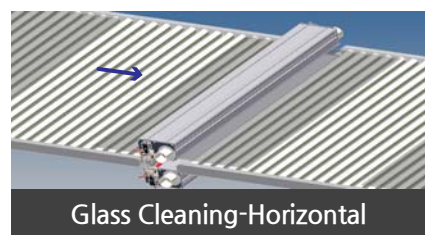
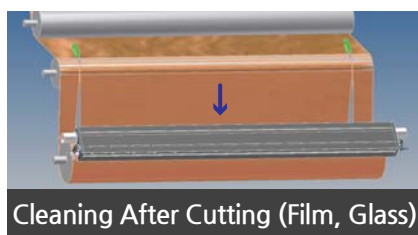
Feature Comparison

Parameter	Standard Type (Other Company)	SCB Series (SUNJE)
Concept Image		
Removing Tool	 Jet Nozzle	 Air Knife
Capacity	Over 20~50 μ m	Over 10~15 μ m
Feature	<ul style="list-style-type: none"> ▶ Direct air spray type ▶ While spraying the air, leaking air between the gap can cause 2nd contamination ▶ Unbalanced air flow issue can appear in clean room ▶ Some area cannot be effective due to the use of jet nozzle 	<ul style="list-style-type: none"> ▶ Removing dust with vacuum + air pressure ▶ Same direction of air spray and dust collecting prevents the secondary contamination ▶ Proper way of removing dust for Clean room <ul style="list-style-type: none"> ※ This does not affect air flow balance in clean room ▶ Air knife and dust chamber design using Coanda effect makes the performance excellent ▶ Uniform removal level without dead zone

Test Image

No.	Before Removal	Input Particle	After Removal	Test condition and result
1				<ul style="list-style-type: none"> ▶ Application : LED Lamp ▶ Particle Type : Plastic ▶ Air Pressure : 5kg/cm² ▶ Height : 2.0mm ▶ Result : No particle
2				<ul style="list-style-type: none"> ▶ Application : Glass ▶ Category : Glass Powder ▶ Air Pressure : 5kg/cm² ▶ Result : No Particle

Application



TSP Camera Lens Cleaning / TSP Camera Module Cleaning / TSP Cover Glass Cleaning / Automotive Interior Material Cleaning / Automotive Air Conditioning Panel Cleaning / Steel Plate Cleaning / Optic Film Cleaning / Film Cleaning / Glass Cleaning

SCT Series

Purpose : To remove non-adhesive particle

Composition : Rotating nozzle, Collecting dust hood, Ionizer

How To Remove : Spinning nozzles creates the wind, makes the particle float and then collects particle in the air



Key Features

- Fast speed rotating nozzle
- Low pressure, High efficient performance
- Compact size from profile structure
- Electrostatic free using installed ionizer

Description

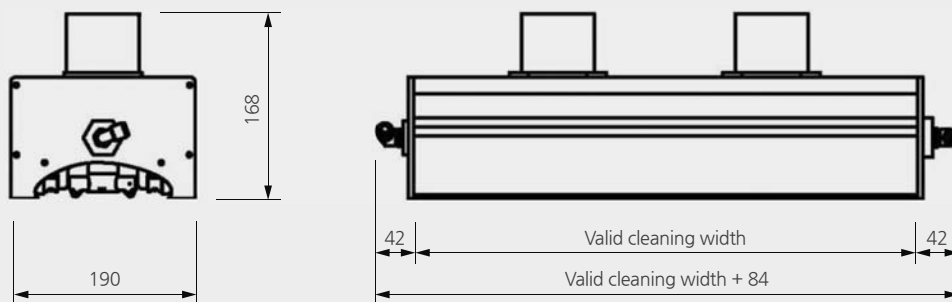
- Non Contact Type Dust Removal
- Suitable for removing fine particle with high speed rotating nozzle
- Available for removing particle from not only 2D but also 3D (Various shape applicable)

Specifications

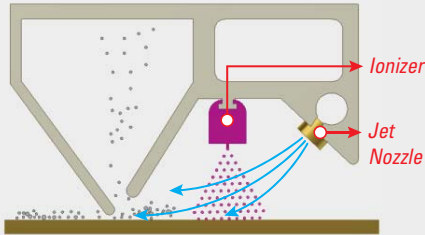
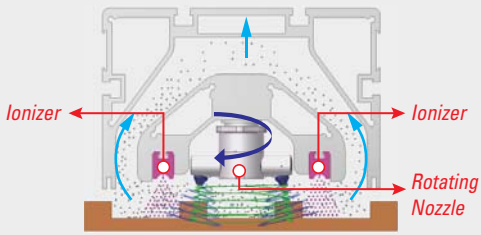


Parameter	Description / Value
Application	Glass / PCB Assembly / Plastic / Molded Parts / Sandwich-Panel / Tray Removal / Painting / BLU Assembly / Other 3D Shape
Valid cleaning width (mm)	50 ~ 2,700mm
Size	(Dust Removal Valid Width+84mm) × 190mm × 190mm [Length × Width × Height]
Ionizer	2ea
Removing Tool Type	Rotating Nozzle
Dust Removal Body	Profile Structure
Option	Dust Collector / Utility Parts / Control System

※The appearance and specification of the product may be changed without prior notice for the improvement of the product.




Dimensions



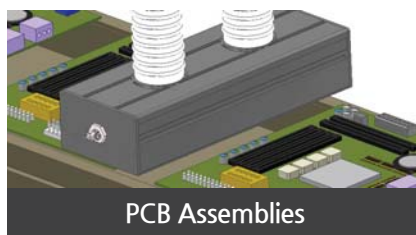
Feature Comparison

Parameter	Standard Type (Other Company)	SCT Series (SUNJE)
Concept Image		
Removing Tool	 Jet Nozzle	 Rotating Nozzle
Capacity	Over 20 ~ 50 μ m	Over 5 ~ 10 μ m
Feature	<ul style="list-style-type: none"> ▶ Direct air spray type ▶ While spraying the air, leaking air through the gap can cause 2nd contamination ▶ Unbalanced air flow issue can appear in clean room ▶ Jet nozzle brings dead zone 	<ul style="list-style-type: none"> ▶ Maximized performance by using rotating nozzle ▶ Available for removing particle from not only 2D but also 3D (various shape applicable) ▶ Easy to remove dust from the narrow gap

Test Image

No.	Before Removal	Input Particle	After Removal	Test Condition And Result
1				<ul style="list-style-type: none"> ▶ Application : PDP Lower Plate ▶ Particle Type : Glass Powder ▶ Air Pressure : 1.0kg/cm² ▶ Height : 8.0mm ▶ Result : No Particle
2				<ul style="list-style-type: none"> ▶ Application : BLU Assembly ▶ Particle Type : Dust ▶ Air Pressure : 3.0kg/cm² ▶ Height : 16mm ▶ Result : No Particle

Application



TSP Camera Lens Cleaning / TSP Camera Module Cleaning / TSP Cover Glass Cleaning / Microwave door cleaning / Fridge front glass cleaning / Cosmetic bottle cleaning / Tray Cleaning / Grinding tool cleaning / Molding cleaning / PCB Cleaning / F-PCB Film Cleaning / Copper film cleaning / Scanner assembly cleaning / Curved TV backlight cleaning / Backlight Cleaning / LCD Cleaning / 7G LCD Glass cleaning / 8G LCD Glass cleaning / Glass Chip Cleaning / Wafer Cleaning / Semiconductor cleaning / Automotive gauge cleaning / Automotive components cleaning / Automotive air conditioning panel cleaning / Motor Core Cleaning

SCV Series

Purpose : To remove non-adhesive particle

Composition : Air Knife, Round nozzle, Ionizer

How To Remove : Separate the particle using vibration and air



Key Features

- Vibrator Hz Controller is equipped
- 5-way air injection nozzle is equipped
- Intensive cleaning, Swing cleaning selection mode installed
- Compatible with both In Line / Off Line
- Eliminate static electricity by spraying ionized air at a time

Description

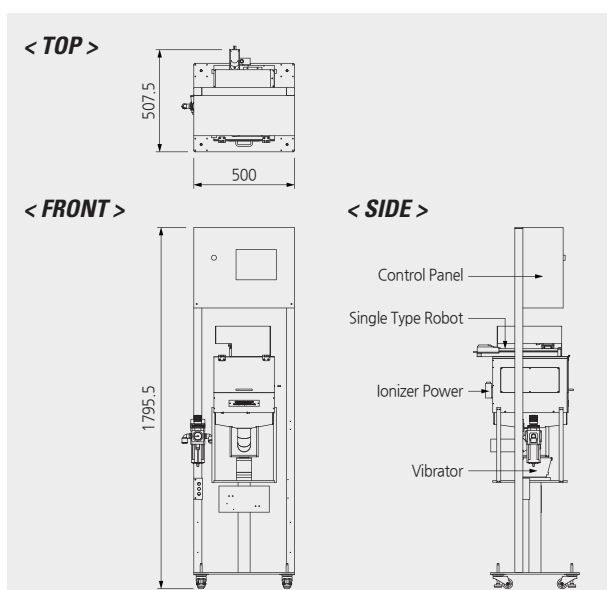
- Non Contact Type Cleaning System
- Suitable for removal of weak fixed particles and fine particles in gaps by using vibration and air
- Maximized particle removal efficiency with 5-way air injection nozzle
- Simultaneous cleaning the products placed on the tray is possible

Specifications

Parameter	Description / Value
Application	Cleaner for TSP Camera Module (VCM, Lens Cleaning)
Robot Stroke	200mm (± 0.01 mm)
Cleaner Size	500mm×508mm×1800mm (Length × Width × Height)
Vibrator Frequency	60 ~ 400Hz (Adjustable range)
Ionizer	2ea
Air Nozzle Type	Air Knife + Round Nozzle
Option	Dust Collector / Utility Parts

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Dimensions



Test Image

State	Sample #1	Sample #2	Sample #3
Be.			
Af.			

- ▶ Application : Camera module tray
- ▶ Particle Type : Mixed
- ▶ Air pressure : 4kg/cm²
- ▶ Result : No particle

Contact Type

A device that removes foreign matter on the film surface with a special roller after antistatic

Turbo Clean



Key Features

- All in one electrostatic power control, no additional device needed
- Easy cleaning, roller maintenance with simple cartridge change
- Web cleaning Solution with improved quality, less defects, reasonable price

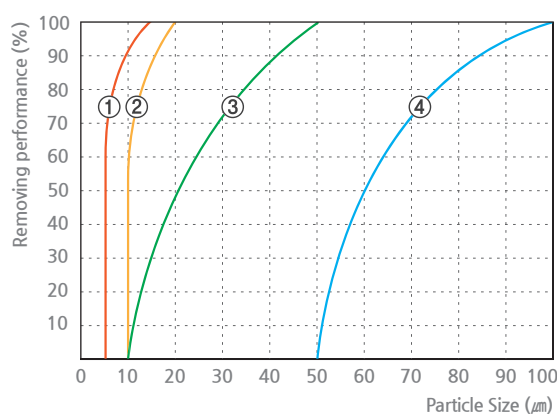
Specifications

Parameter	Description / Value
Applicable Material	Plastic Films / Paper
Available Widths	250~800mm
Cleaning Sides	1
Ion Bar	2
Maximum Speed	250m/min
Voltage Supply Vac (Ionizer)	230(±10%)V, 50/60 Hz, 0.1A
Voltage Supply Vdc (Web Cleaner)	24V, 0.4A

※ The appearance and specification of the product may be changed without prior notice for the improvement of the product.

Performance Comparison

Following graph shows Dust Removal performance



	Parameter	Capacity
SUNJE	① SCT Series	Over 5 ~ 10μm
	② SCB Series / SCH Series	Over 10 ~ 15μm
Other Company	③ previous removal	Over 20 ~ 50μm
	④ previous removal (Vacuum Type)	Over 50 ~ 100μm

► Like the table above, SCB / SCH / SCT series shows twice better performance than previous one.

Electrostatic Total Solution

High-Performance / Minimum Particle Source / Stable Ion Balance / Minimum Air Consumption Rate-Reduce Maintenance Costs
Reasonable Price Parts / Minimum Dust Adhesion-Extension of a Maintenance Period

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