

VESSEL®



Static Control Product Catalog

<http://www.vessel.co.jp/english/staticelectric/>

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Static Control Product Catalog Contents

Ionizers (For use at electronics plants)

These products are engineered to solve static electricity problems such as static electricity-triggered device failures in semiconductor and electronic device assembly plants, liquid crystal display (LCD) and plasma display (PDP) production plants, and clean rooms.



SDJ-08S

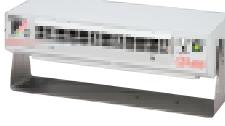


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Ion Parts Cleaners

These products provide a single-device solution that can erase static electricity, eliminate dust, and absorb ejected foreign materials from products in a static-free space.



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Static Electricity Measuring Instruments

These products provide an easy way to measure and display invisible static electricity.



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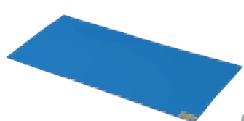
EPA Systems



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ESD Countermeasure Wrist Straps

This series of wrist straps is designed for workers who handle devices that are sensitive to static electricity.

EPS-01



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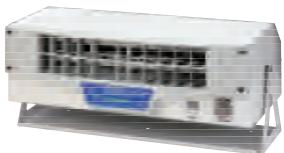
Ionizers (For use at resin molding plants)

For resin molding, mold, packaging, printing, painting, and food product plants, etc.

SDJ-05R



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Options and replacement parts

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StatClean Series Functionality

Functions

FAN OFF Allows the model in question to be used with no airflow.

CAPACITIVE COUPLED Maintains optimal ion balance (patent pending).

ADJUSTABLE ION BALANCE Indicates that the ion balance can be adjusted.

OPERATING STATE INDICATOR Indicates that the operating state of the model in question is displayed by LED lamps.

DUAL FRONT COVERS Indicates that the model in question has straight and diffusing type front covers.

LED ILLUMINATION Indicates that the model in question has LED illumination.

ANTI-METAL ALLERGY Indicates that the model in question uses stainless steel that is chemically formulated to be less likely to give off nickel.

Drive Power Supply

LOW-VOLTAGE DRIVE **24 VDC** INCLUDED TRANSFORMER **100 - 240 VAC** POWER SUPPLY **100 VAC**

Built-in Fan

60 MM FAN **90 MM FAN** **120 MM FAN** **120 MM 3 FANS** **CROSS-FLOW FAN**

Air Pressure

AIR/N₂ MAX 0.5 MPa **AIR/N₂ MAX 0.6 MPa** **AIR/N₂ MAX 0.7 MPa**

Safety

ALARM & SIGNAL **FAN LOCKUP** ALARM **FAN LOCKUP**

These icons indicate that the model in question provides an alarm to alert the operator if the fan locks up.

ALARM & SIGNAL **H.V.** ALARM **H.V.**

These icons indicate that the model in question provides an alarm to alert the operator of a high-voltage malfunction if the high-voltage transformer stops generating output.

OVERLOAD PREVENTION FUNCTION Indicates that the model in question provides an overload prevention function.

ALARM & SIGNAL LOW ION LEVEL Indicates that the model in question provides functionality for alerting the operator if ion levels fall.

ALARM & SIGNAL CLEAN ELECTRODES Indicates that the model in question provides functionality for alerting the operator when electrode needles need to be cleaned.

ALARM & SIGNAL CHANGE BATTERY Indicates that the model in question provides functionality for alerting the operator when the battery charge falls to or below 20%.

ALARM & SIGNAL BAD GROUND Indicates that the model in question provides functionality for alerting the operator if it is not properly grounded.

Maintenance

ELECTRODE CLEANING TIMER 200 HOURS **ELECTRODE CLEANING TIMER 100 HOURS**

These icons indicate that the model in question alerts the operator when the indicated value is reached.

Measurement Conditions

Ion balance : 300 mm from the front of the device at maximum airflow setting

Decay time : 300 mm from the front of the device at maximum airflow setting
(given as the time required for the voltage to attenuate from $\pm 1,000$ V to ± 100 V)

Charged plate monitor : 150 mm x 150 mm square, 20 pF

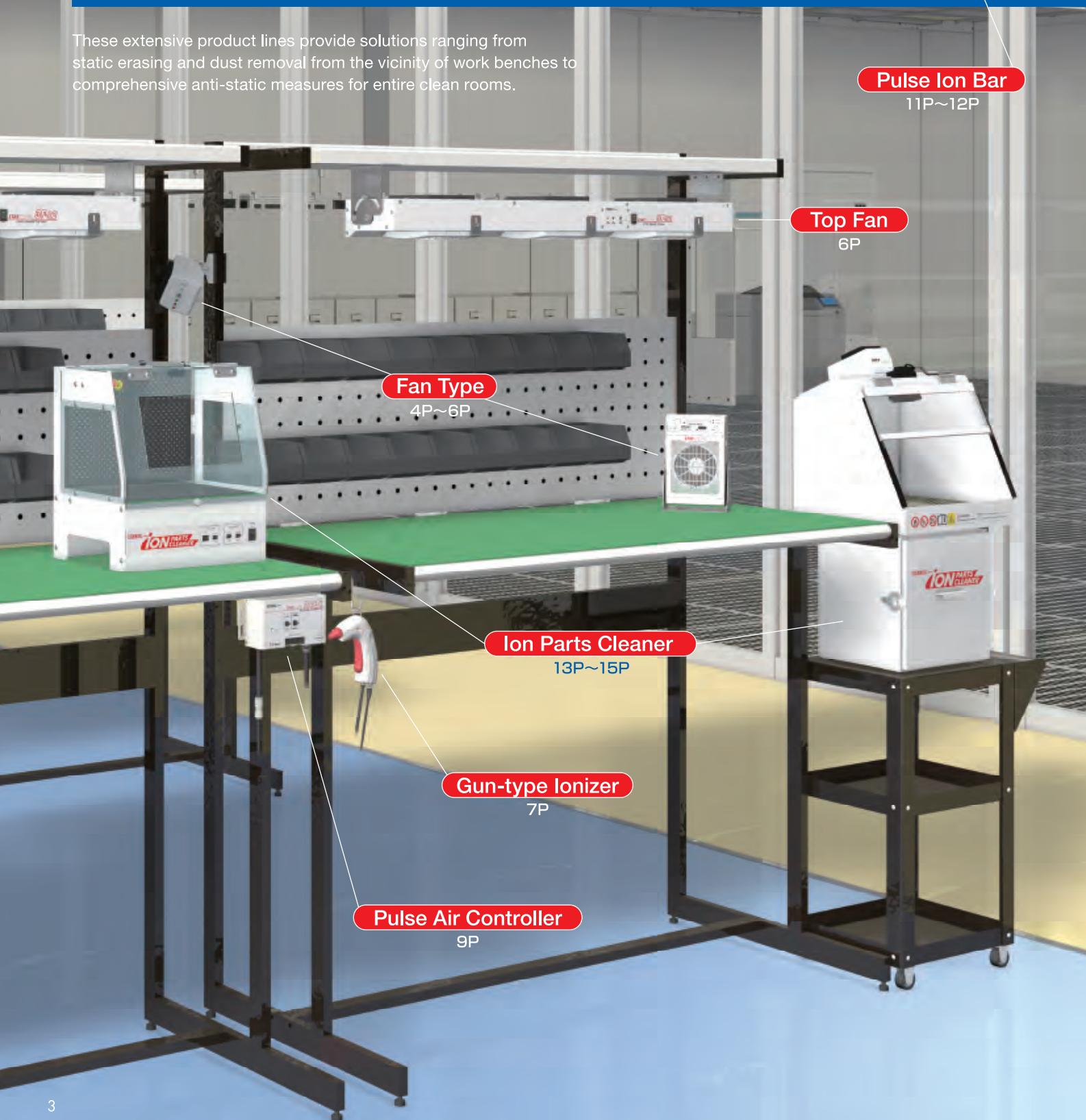
Noise level : 1 m from the front of the device at maximum airflow setting

*Measured values given in this catalog are provided as representative values obtained using a sample device. They do not constitute a guarantee of performance.

Preventing Static Breakdown of Electronic Devices and Adhesion of Airborne Dust to Products

Ionizers and Ion Parts Cleaners

These extensive product lines provide solutions ranging from static erasing and dust removal from the vicinity of work benches to comprehensive anti-static measures for entire clean rooms.

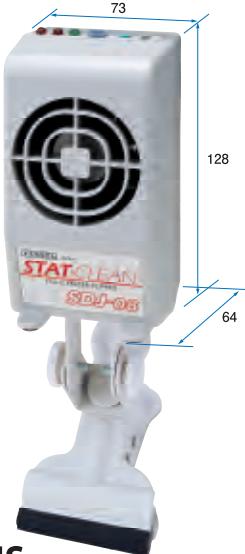


SDJ-08S

Ionizing Mini-Fan with clip
(EDP No. 621362)

Ionizing method: Piezoelectric high-frequency AC corona discharge
Electrode needles: Inconel

**This mini-fan's compact size keeps it out of the way.
Use as an ESD countermeasure for part trays by
attaching it to your work bench or support posts.**



CE RoHS

- Featuring a compact, lightweight design that weighs just 0.3 kg. A convenient clip simplifies installation.
- Airflow can be varied continuously over the full range of the unit's performance.



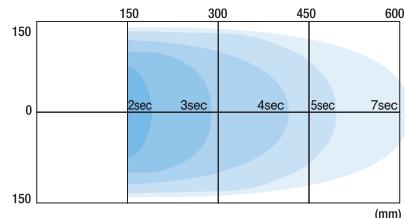
Primary specifications

Applied voltage	3.5 kVAC
Power supply and current consumption	24 VDC $\pm 5\%$, 250 mA (max.)
Weight	320 g
Airflow	0.8 m ³ /min (at max. airflow)
Noise level	59.2 dBA (measured 1 m from device at max. airflow)
Ozone production	0.05 ppm or less (measured 50 mm from device at max. airflow)
Operating temperature and humidity	5°C to 40°C, 20% to 80% RH (non-condensing, non-freezing)
Accessories	Power supply transformer No. AD24-IT-EX

Static erasing performance

Ion balance: Within ± 10 V; Decay time: 3.2 sec or less

Static erasing area



Accessories



Power Supply Transformer
AD24-IT-EX
(EDP No. 806050)

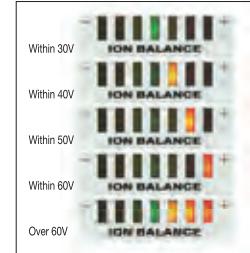
Input: 100 to 240 VAC, 0.4 A
Output: 24 VDC, 0.75A

SF9-E

Fan-type Ionizer with Integrated Sensor
(EDP No. 621364)

Ionizing method: Piezoelectric high-frequency DC corona discharge
Electrode needles: Tungsten

Ion balance is monitored by a sensor and adjusted automatically. Dual piezoelectric transformers deliver the ultimate in high performance.



CE RoHS

- A proprietary feedback sensor corrects the ion balance to within ± 5 V.
- Dual piezoelectric transformers deliver exceptional static-erasing performance over the long term.
- Airflow can be set to any of three quiet settings (with a noise level of just 52 dB at the highest setting).
- In another industry first, a high-brightness LED lets you check for dirt on the discharge electrode visually.
- The electrode needle unit is removable for improved maintenance.



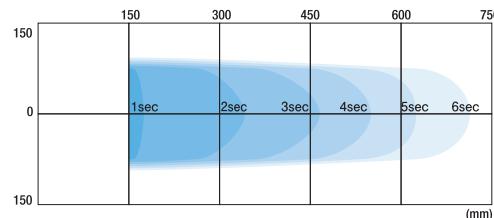
Primary specifications

Applied voltage	± 4.0 kVDC to ± 8.0 kVDC
Power supply and current consumption	24 VDC $\pm 5\%$, 380 mA (max.)
Weight	980 g
Airflow	1.8 m ³ /min (at max. airflow)
Noise level	52 dBA (measured 1 m from device at max. airflow)
Ozone production	0.05 ppm or less (measured 50 mm from device)
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Power supply transformer No. AD24-IT-EX

Static erasing performance

Ion balance: Within ± 5 V; Decay time: 1.6 sec or less

Static erasing area



Accessories



Power Supply Transformer
AD24-IT-EX
(EDP No. 806050)

Input: 100 to 240 VAC, 0.4 A
Output: 24 VDC, 0.75A

F12E-E

Fan-type Ionizer
(EDP No. 621369)

Ionizing method: Piezoelectric high-frequency AC corona discharge
Electrode needles: Inconel

Maintains an ion balance of ± 5 V using capacitive-coupled electrode needles (patent pending).



CE RoHS

- Airflow can be varied continuously over the full range of the unit's performance.
- Includes both straight and diffusing front covers.
- The electrode needle unit is removable for improved maintenance.



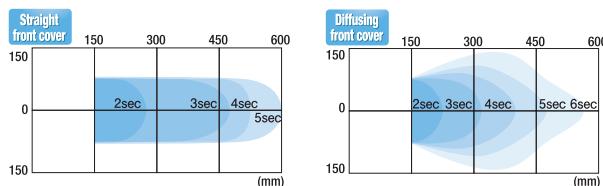
Primary specifications

Applied voltage	2.4 kVAC
Power supply and current consumption	24 VDC $\pm 5\%$, 400 mA (max.)
Weight	1.4 kg
Airflow	3.4 m ³ /min (at max. airflow)
Noise level	51.4 dBA (measured 1 m from device at max. airflow)
Ozone production	0.05 ppm or less (measured 50 mm from device)
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Power supply transformer No. AD24-IT-EX
	Straight front cover
	Diffusing front cover

Static erasing performance

Ion balance: Within ± 5 V; Decay time: 3 sec or less (when using straight front cover)

Static erasing area



Accessories



Power Supply Transformer
AD24-IT-EX
(EDP No. 806050)

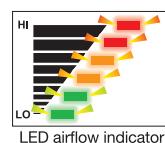
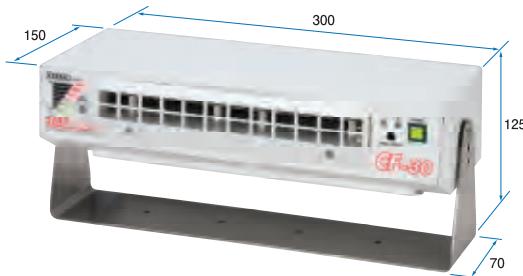
Input: 100 to 240 VAC, 0.4 A
Output: 24 VDC, 0.75 A

CF-30-E

Wide-type Ionizer with Cross-flow Fan
(EDP No. 621375)

Ionizing method: Piezoelectric high-frequency AC corona discharge
Electrode needles: Inconel

Compact, low-profile design saves space.
Secures wide static-free workspace.



CE RoHS

- Maintains an ion balance of ± 5 V using capacitive-coupled electrode needles.
- LED indicator lights up progressively to indicate airflow, which can be varied continuously over the full range of the unit's performance.
- The electrode needle unit and front cover are both removable for improved maintenance.



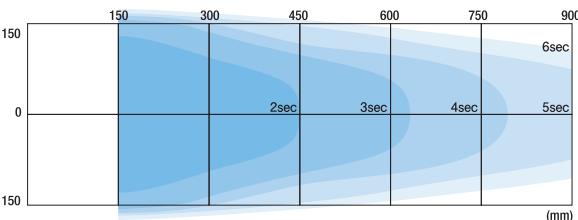
Primary specifications

Applied voltage	3.5 kVAC
Power supply and current consumption	24 VDC $\pm 5\%$, 600 mA (max.)
Weight	2.1 kg
Airflow	1.58 m ³ /min (at max. airflow)
Noise level	51.2 dBA (measured 1 m from device at max. airflow)
Ozone production	0.05 ppm or less (measured 50 mm from device at max. airflow)
Operating temperature and humidity	0°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Power supply transformer No. AD24-ITCF-EX

Static erasing performance

Ion balance: Within ± 5 V; Decay time: 1.4 sec or less

Static erasing area



Accessories



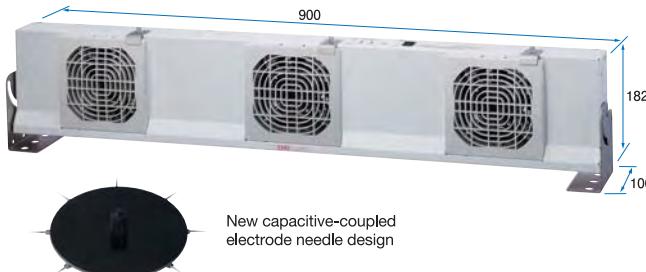
Power Supply Transformer
AD24-ITCF-EX
(EDP No. 806074)

Input: 100 to 240 VAC, 1.2 A
Output: 24 VDC, 1.5A

3F-12-E Overhead Triple-fan Ionizer

Ionizing method: Piezoelectric high-frequency AC corona discharge
Electrode needles: Inconel

Erases static electricity over a large area by installing above your work bench or conveyor belt.



- Maintains an ion balance of ± 5 V using capacitive-coupled electrode needles (patent pending).
- Includes 24 VDC 300 mA service power supply.
- The electrode needle plate is removable for improved maintenance.

CAPACITIVE COUPLED **120 MM 3 FANS** **LOW-VOLTAGE DRIVE 24 VDC** **INCLUDED TRANSFORMER 100 - 240 VAC** **ALARM & SIGNAL FAN LOCKUP** **ALARM & SIGNAL H.V.**

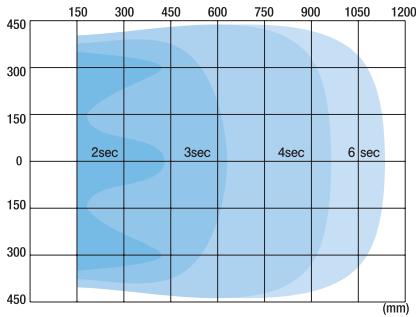
Primary specifications

Applied voltage	2.4 kVAC
Power supply and current consumption	24 VDC $\pm 5\%$, 1,200 mA (max.)
Weight	5.3 kg
Airflow	3.4 m ³ /min (at max. airflow)
Noise level	58 dBA (measured 1 m from device at max. airflow)
Ozone production	0.05 ppm or less (measured 50 mm from device)
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Power supply transformer No. AD24-IT19
	Straight front cover (included with fan unit)
	Diffusing front cover (included with fan unit)

Static erasing performance

Ion balance: Within ± 5 V; Decay time: 1.8 sec or less

Static erasing area



Accessories



AD24-IT19
(EDP No. 806080)

Power Supply Transformer
Input: 100 to 240 VAC, 1.2 A
Output: 24 VDC, 1.9A



G7R-E

Gun-type Ionizer
(EDP No. 621621)

Ionizing method: Piezoelectric high-frequency AC corona discharge
Electrode needles: Tungsten

This lightweight, easy-to-use design provides powerful, high-airflow dust elimination.
The gun features a high-brightness LED light, which makes dust visible.



CE RoHS

- Compact, lightweight plastic body incorporates an ergonomic grip that fits the hand comfortably.
- Includes LED illumination to make dust visible.
- Safe design features a built-in piezoelectric transformer.
- Electrode needles can be easily cleaned and replaced using Electrode Needle Replacement Screwdriver, G-7DR (separately sold).
- Both sides of the grip incorporate an operating LED and high-voltage malfunction alarm LED, allowing the user to check on the gun's operating status at any time.



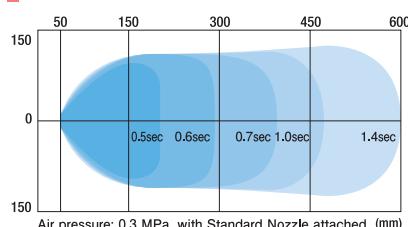
Primary specifications

Applied voltage	2.3 kVAC
Power supply and current consumption	24 VDC $\pm 5\%$, 100 mA (max. when using LED illumination)
Weight	198 g
Air supply pressure	0.1 MPa to 0.6 MPa
Air supply hose diameter	6 mm \times 4 mm
Airflow	202 L/min (at 0.3 MPa)
Noise level	84 dBA (measured 1 m from device at 0.3 MPa)
Ozone production	0.05 ppm or less (measured 50 mm from device at 0.3 MPa)
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Power supply transformer No. AD24-ITC-E
	Standard Nozzle (G-7SN)
Optional parts	Tube-fitting Nozzle (G-7TN), Brush (G-7B), Electrode Needle Replacement Screwdriver (G-7DR)

Static erasing performance

Ion balance: Within ± 10 V; Decay time: 0.5 sec or less
(150 mm from surface, 0.3 MPa, Standard Nozzle)

Static erasing area



Accessories



Option parts

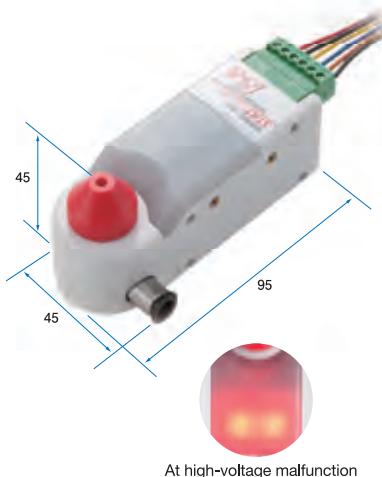


N-2

Pinpoint Nozzle Ionizer
(EDP No. 621615)

Ionizing method: Piezoelectric high-frequency AC corona discharge
Electrode needles: Tungsten

**Featuring an LED indicator that communicates the device's operating status at a glance.
Compact nozzle-type ideal for confined spaces and that can be matched to a variety of work conditions.**



5 types of tip parts are available
in accordance with
your application.



Standard Nozzle



Flared Nozzle can be
angled appropriately.



Tube-fitting Nozzle provides
connection with air tube.

Accessories



Flared Nozzle
N-2FN
(EDP No. 806086)



Tube-fitting Nozzle
N-2TN
(EDP No. 806085)



Electrode Needle Replacement
Screwdriver (separately sold)
G-7DR
(EDP No. 806061)

Option parts

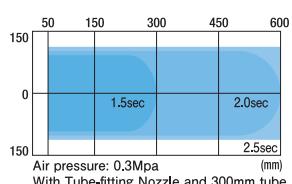
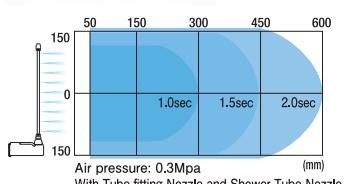


Flexible Shower Tube
N-2C6B
(EDP No. 621706)



Silent Nozzle
N-2WN
(EDP No. 806087)

Eco-friendly product



CE RoHS

- Compact, lightweight plastic body.
- Ships standard with three nozzles for use in a variety of applications.
- Part of top cover glows blue during operation and red when stopped due to a malfunction.
- Power can be supplied to multiple units by daisy-chaining them together.



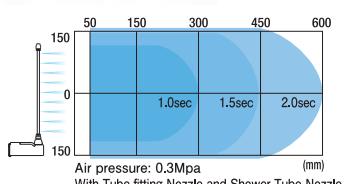
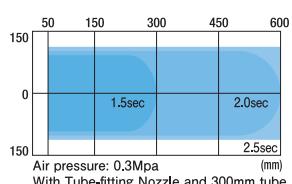
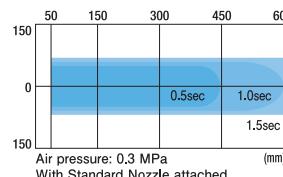
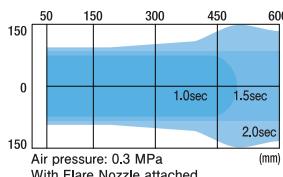
Primary specifications

Applied voltage	6.0 kVAC (p-p) (typ.)
Power supply and current consumption	24 VDC $\pm 5\%$, 58 mA (typ.)
Weight	106 g
Air supply pressure	0.1 MPa to 0.6 MPa
Air supply hose diameter	6 mm \times 4 mm
Airflow	140 L/min (at 0.2 MPa)
Noise level	86.2 dBA (measured 1 m from device at 0.2 MPa)
Ozone production	0.05 ppm or less (measured 50 mm from device)
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Standard Nozzle (included with device), Flared Nozzle (N-2FN), Tube-fitting Nozzle (N-2TN), Power supply harness, Electrode Needle Replacement Screwdriver (G-7DR)

Static erasing performance

Ion balance: Within ± 10 V; Decay time: 0.7 sec or less
(150 mm from surface, 0.3 MPa, Standard Nozzle)

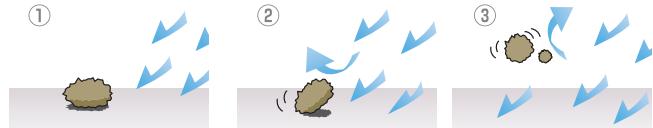
Static erasing area



Slash your air consumption by 60%!
Connect PAC-8 to ionizers to eliminate dust and static efficiently with pulse air.



CE RoHS



Static erasing benefits:

Dust adheres to the surface as a result of static electricity buildup and becomes embedded in depressions on the surface, making it difficult to dislodge. An intermittent stream of ionized air can be used to vibrate the dust, neutralize its static charge as it floats above the surface, and then blow it quickly away.

Pulse benefits:

Compressed air is released and sprayed under pressure when the solenoid valve opens. By repeatedly applying the resulting force (in the form of a shock wave), dust can be removed more effectively than is possible with normal compressed air.

- Pulse mode reduces air consumption by 60% compared to continuous mode operation.
- Bursts of air vibrate dust and forcibly dislodge it.
- Can be used in conjunction with bar- and nozzle-type ionizers as well as other equipment.

LOW-VOLTAGE
DRIVE
24 VDC AIR/N₂
MAX. 0.6 MPa

Primary specifications

Power supply and current consumption	24 VDC $\pm 5\%$, 70 mA (PAC-8 only)
Weight	610 g
Air supply hose diameter	8 mm \times 6 mm
Airflow	See chart to right.
Output power supply	24 V $\pm 5\%$, 680 mA (when connected to separately available AD24-ITC-E)
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Instruction manual, 8 mm/6 mm conversion plug, 8 mm air hose (100 mm long)

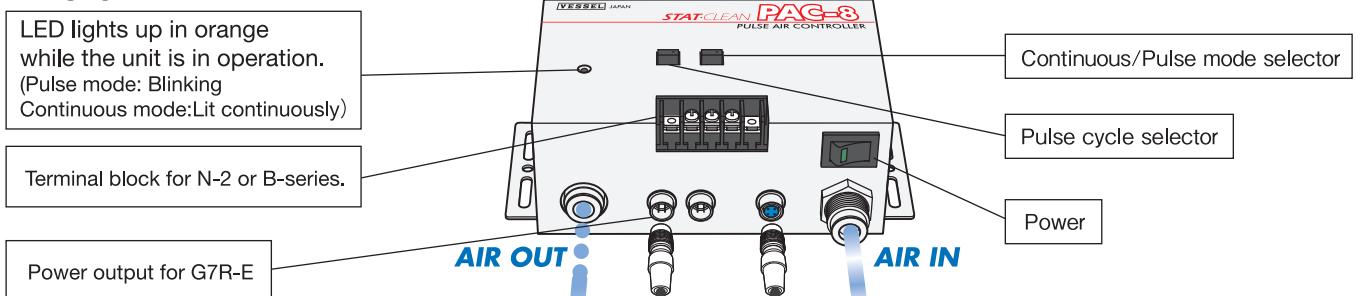
Airflow

Pressure (MPa)	0.1	0.2	0.3	0.4	0.5	0.6
Continuous mode (L/min)	125	232	330	461	567	572
Pulse mode (L/min)	50	92.8	132	184.4	226.8	228.8

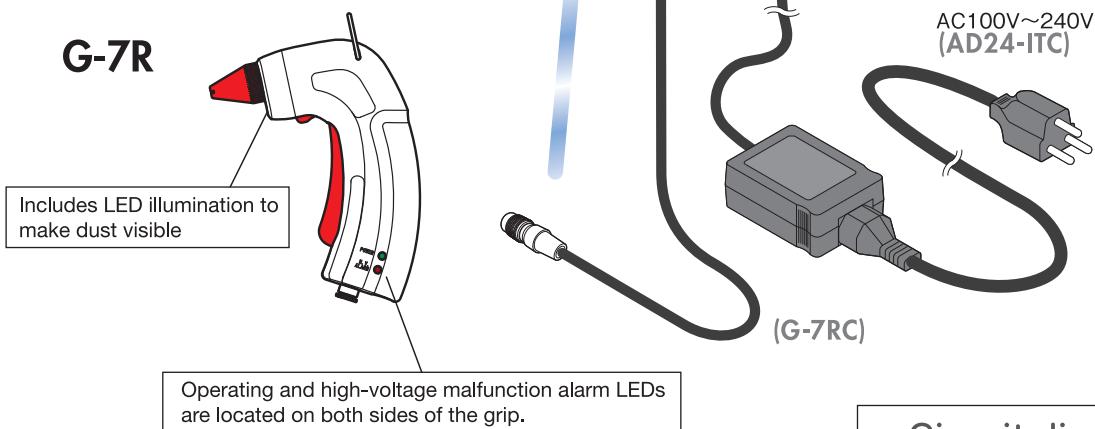
*Air consumption figures for pulse mode are theoretical values and do not include the losses that occur while the solenoid valve is opening and closing.

Example Connection

PAC-8

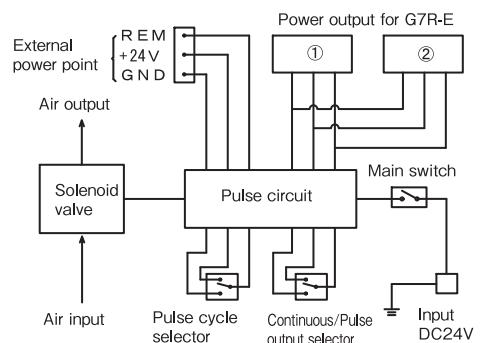


G-7R



- Safe design features a built-in piezoelectric transformer.
- Compact, lightweight plastic body.
- Robotic cables are engineered to withstand being flexed 10 million times.
- CE/RoHS

Circuit diagram



Example connection

The PAC-8 Pulse Air Controller can be connected to other ionizers and air devices.

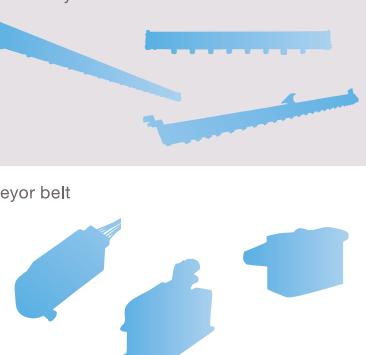
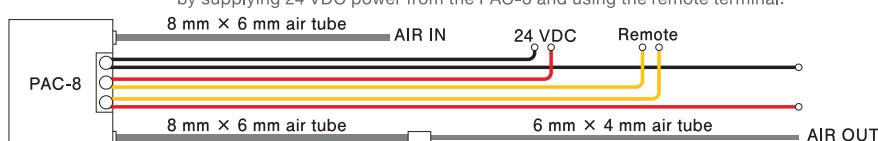
Bar-type ionizer

*When using intermittent air, set to 0.2 MPa or lower.
*Do not supply power from the PAC-8 as ion generation on some models may be subject to a delay.



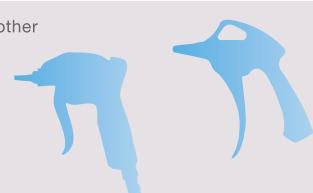
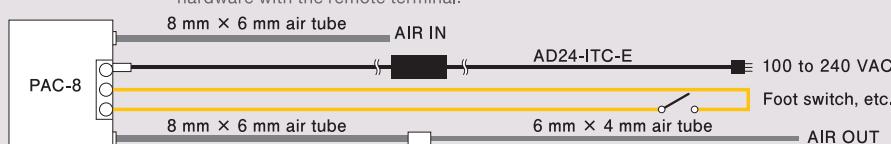
Nozzle-type ionizer

*The air stream can be toggled on and off in response to the presence of work on a conveyor belt by supplying 24 VDC power from the PAC-8 and using the remote terminal.



Air duster

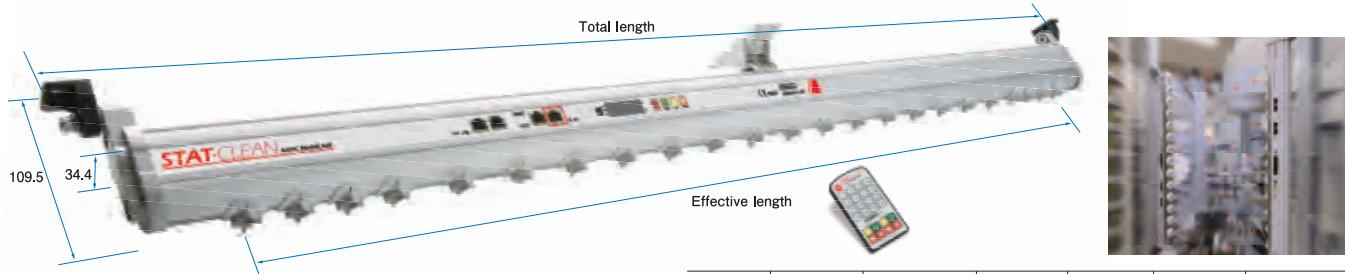
*Install so that the power supply is turned off when not blowing air by using a foot switch or other hardware with the remote terminal.



B-series AC Pulse Ionizing Bars

Ionizing method: Pulse AC corona discharge
Electrode needles: Tungsten

Introducing an AC pulse ion bar with high-precision ion balance adjustment functionality.



Dimensions, number of electrode needles, middle bracket quantity, and weight.

Model no.	Total length (mm)	Effective length (mm)	Electrode needles	Middle brackets	Weight (kg)	EDP No.
B-60	660	480	13PCS	-	1.2	621511
B-90	962	769	17PCS	-	1.5	621512
B-95	1017	824	18PCS	-	1.6	621513
B-100	1127	934	20PCS	-	1.6	621514
B-120	1292	1099	23PCS	-	1.8	621515
B-140	1457	1264	26PCS	-	2.0	621516

Model no.	Total length (mm)	Effective length (mm)	Electrode needles	Middle brackets	Weight (kg)	EDP No.
B-150	1567	1374	28PCS	1PC	2.1	621517
B-160	1677	1484	30PCS	1PC	2.2	621518
B-180	1897	1704	34PCS	1PC	2.3	621519
B-210	2227	2034	40PCS	2PCS	2.6	621520
B-220	2337	2144	42PCS	2PCS	2.7	621521
B-230	2447	2254	44PCS	2PCS	2.8	621522
B-260	2667	2474	48PCS	3PCS	3.1	621523
B-280	2887	2694	52PCS	3PCS	3.3	621524
B-300	3107	2914	56PCS	3PCS	3.5	621525

*B-260/280/300 are made-to-order items.

CE RoHS

- Extensive line includes a total of 15 models ranging from 600 mm to 3,000 mm in length.
- The ion balance adjustment function enables use of the device in a variety of applications (frequency, pulse ratio, and voltage output settings can be configured).
- Includes a credit card-shaped remote control (functionality includes frequency and pulse rate settings).
- Includes an air purge function, allowing static electricity erasing performance to be increased by supplying air to the device.
- Safety-conscious design features a built-in high-voltage power supply and high-voltage cabling.
- Additionally, the device can be monitored from a computer by using the RMS monitor function (optional).
- Electrode needle units twist off for easy replacement.



Primary specifications

Applied voltage	Max.12 kVpp. (Adjustable in 10 steps for each polarity)
Power supply and current consumption	24 VDC $\pm 5\%$, 600 mA (max.)
Air supply	0.1 MPa to 0.3 MPa
Air supply hose diameter	8 mm \times 6 mm (PT1/8 air supply inlet)
Ozone production	0.05 ppm or less (measured 50 mm from device at 0.3 MPa)
Operating temperature and humidity	0°C to 50°C, 35% to 85% RH (non-condensing, non-freezing)
Accessories	Power supply cable, remote controller (RMS-01), 2 end brackets with set screws (B-EB), middle bracket with set screws (B-MB, depends on bar length)

Example wiring

When connecting 1 pulse ion bar

Using the included power supply cable

Included power supply cable

When connecting 2 pulse ion bars

Using a B-SP2 branch adapter, CT-5 power supply cable, and AD24-ITCF-EX power supply transformer

Branch adaptor: B-SP2

*LAN cable (commercially available cable)

Ask for a CAT5 LAN cable.

When connecting 3 pulse ion bars

Using a B-SP3 power supply separator, CT-5 power supply cable, and AD24-IT19 power supply transformer

Cable length: Max. 20 m to end of bar

*LAN cable (commercially available cable)

Ask for a CAT5 LAN cable.

Accessories



End Brackets (set of 2 with set screws)

B-EB

(EDP No. 806102)



Power Supply Cable
CT-5
(EDP No. 621533)



Middle Bracket (with set screws)

B-MB

(EDP No. 806103)



Remote Control
RMC-01
(EDP No. 806104)

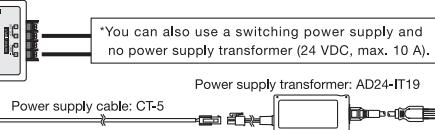
RMS Controller
RMS
REAL MONITORING SYSTEM

System for continuously monitoring the operating status of B-Series pulse ion bars. In the event of a malfunction, the system administrator will be notified by a display on a computer screen and an alarm sound.

Static erasing capacity

	150	300	600	1000	1200	1500mm	
0.2	0.2	0.8	3.4	6.5	8.4	17.3	450
0.1	0.1	0.5	2.5	5.6	6.9	10	0
0.1	0.1	0.6	2.4	6.1	7.9	11.8	450mm
							(Seconds)

Air pressure: 0.3 MPa (B-100)

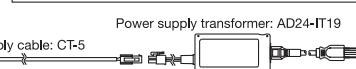


Using a CT-5 power supply cable and AD24-IT-EX power supply transformer

Power supply cable: CT-5

Power supply transformer: AD24-IT-EX

Power supply transformer: AD24-IT-EX



Power supply cable: CT-5

Power supply transformer: AD24-IT19

Power supply transformer: AD24-IT19

SH-Series Compact AC Pulse Ionizing Bars (separate power supply type)

Ionizing method: Pulse AC corona discharge
Electrode needles: Tungsten

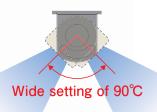
This compact-type ionizing bar is installed separately from its high-voltage power supply unit.

SH-20: Total length 238 mm
(EDP No. 621542)

SH-30: Total length 338 mm
(EDP No. 621543)

SH-40: Total length 443 mm
(EDP No. 621544)

SH-16: Total length 198 mm
(EDP No. 621541)



The bar's angle can be easily adjusted using the included bracket.



- The ion balance can be adjusted by varying the pulse ratio.
- The high-voltage cable can be disconnected from the bar (SH-30, SH-40).
- The high-voltage cable uses a safe, silicon-insulated design.

SH-G2 Power Supply Unit
(EDP No. 621551)



- Industry's lightest at just 1.35 kg.
- Provides two high-output sockets that can be connected to bars for convenient bar installation and wiring.



Primary specifications (bar)

Applied voltage	5.25 kVAC
Air supply hose diameter	6 mm × 4 mm
Air supply	Clean, dry air or nitrogen (N2) (0.5 MPa)
Operating range	About 50 mm to 2,000 mm (air assist used for longer distances)
Ozone production	0.005 ppm or less (measured 50 mm from device at 0.3 MPa)
Operating temperature and humidity	5°C to 55°C, 25% to 85% RH (non-condensing, non-freezing)

Static erasing performance

Ion balance: Within ±10 V; Decay time: 3.0 sec or less

Primary specifications (power supply)

Input power supply	100 to 240 VAC, 50/60 Hz
Power consumption	10 W
Frequency	330 Hz, fixed
Pulse ratio	Positive range: 40% to 70%, Negative range: 60% to 30%
Weight	1.35 kg
Accessories	AC input cable (1.8 m)

Static erasing capacity

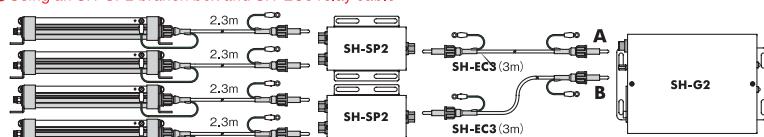
	50	100	300	600	900	1200	1500mm	
0.0	0.0	0.1	0.5	1.1	2.1	2.9	6.1	150
0.0	0.0	0.0	0.3	0.9	1.6	+5	3.8	0
0.0	0.0	0.1	0.5	1.2	2.0	3.0	5.3	150mm

Air pressure: 0.3 MPa (SH-40)

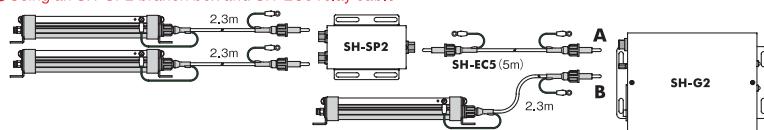
(Seconds)

Example wiring

- Using an SH-SP2 branch box and SH-EC3 relay cable



- Using an SH-SP2 branch box and SH-EC5 relay cable



*Power supply cable (relay cable) length cannot exceed a total of 16 meters to the two high-voltage sockets (A, B).
*Up to 4 SH bars can be connected from a single power supply unit (SH-G2).

Compact, integrated design is ideal for use in a cell production setting or confined space.



- A photoelectric sensor is used to emit a stream of dust-eliminating air.
- Ships with one compact, powerful ionizing fan.

POWER SUPPLY
230 VAC AIR/N₂
MAX. 0.7 MPa OVERLOAD
PREVENTION
FUNCTION

Primary specifications

Dust collection method	Cylindrical cartridge filter
Input power supply	Single-phase 230 VAC (50/60Hz)
Power consumption	70 W (50 Hz) / 75 W (60 Hz)
Current consumption	0.42A (50Hz) / 0.4A (60Hz)
Dust collection airflow	1.6 m ³ /min (50 Hz) / 2.0 m ³ /min (60 Hz)
Static pressure	0.35 kPa (50 Hz) / 0.50 kPa (60 Hz)
Table surface controlled air speed	0.8 m/sec (50 Hz) / 1.0 m/sec (60 Hz)
Dust collection volume	0.5 L
Dust collector output	50 W
Max. airflow	0.4 MPa to 0.7 MPa (use clean air)
Air supply hose diameter	6 mm × 4 mm
Airflow	355 L/min (at 0.7 MPa)
Operating temperature and humidity	0°C to 40°C, 20% to 80% RH (non-condensing, non-freezing)
Noise	56 dB (A) (50 Hz) / 58 dB (A) (60 Hz)
Weight	21 kg

*Domestic model also available as IPC-20 (EDP No. 621381) with an input power supply of 100 VAC. Please inquire at time of order.



Separate type features a dust collector and standalone hood to make effective use of limited space.



- An infrared sensor is used to emit a stream of dust-eliminating air.
- Ships with one compact, powerful ionizing fan.

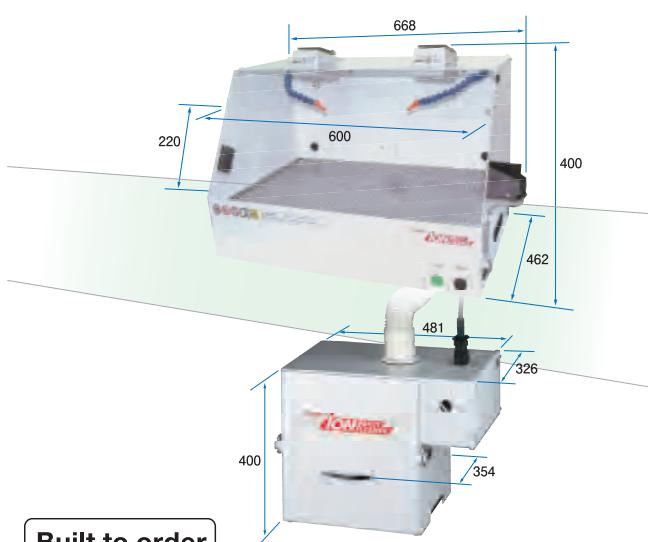
POWER SUPPLY
230 VAC AIR/N₂
MAX. 0.7 MPa OVERLOAD
PREVENTION
FUNCTION

Primary specifications

Dust collection method	Cylindrical cartridge filter
Input power supply	Single-phase 230 VAC (50/60Hz)
Power consumption	200 W (50 Hz) / 280 W (60 Hz)
Current consumption	1.2 A (50Hz) / 1.4A (60Hz)
Dust collection airflow	3.3 m ³ /min (50 Hz) / 4.0 m ³ /min (60 Hz)
Static pressure	0.88 kPa (50 Hz) / 1.23 kPa (60 Hz)
Table surface controlled air speed	0.4 m/sec (50 Hz) / 0.5 m/sec (60 Hz)
Dust collection volume	1.2 L
Dust collector output	200 W
Max. airflow	0.4 MPa to 0.7 MPa (use clean air)
Air supply hose diameter	6 mm × 4 mm
Operating temperature and humidity	0°C to 40°C, 20% to 80% RH (non-condensing, non-freezing)
Noise	63 dB (A) (50 Hz) / 66 dB (A) (60 Hz)
Weight	Hood: 12 kg; dust collector: 30 kg

*Domestic model also available as IPC-40 (EDP No. 621389) with an input power supply of 100 VAC. Please inquire at time of order.

Featuring a wide 600 mm hood capable of accommodating large work.



*Uses the same dust collector as the IPC40-E.

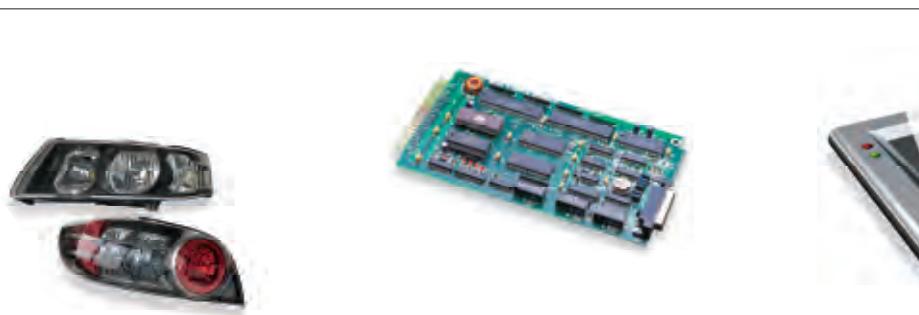
- An infrared sensor is used to emit a stream of dust-eliminating air.
- Ships with two compact, powerful ionizing fan.

POWER SUPPLY
230 VAC AIR/N₂
MAX. 0.7 MPa OVERLOAD
PREVENTION
FUNCTION

Primary specifications

Dust collection method	Cylindrical cartridge filter
Input power supply	Single-phase 230 VAC (50/60Hz)
Power consumption	200 W (50 Hz) / 280 W (60 Hz)
Current consumption	1.2 A (50Hz) / 1.4A (60Hz)
Dust collection airflow	3.3 m ³ /min (50 Hz) / 4.0 m ³ /min (60 Hz)
Static pressure	0.88 kPa (50 Hz) / 1.23 kPa (60 Hz)
Table surface controlled air speed	0.4 m/sec (50 Hz) / 0.5 m/sec (60 Hz)
Dust collection volume	1.2 L
Dust collector output	200 W
Max. airflow	0.4 MPa to 0.7 MPa (use clean air)
Air supply hose diameter	6 mm × 4 mm
Operating temperature and humidity	0°C to 40°C, 20% to 80% RH (non-condensing, non-freezing)
Noise	63 dB (A) (50 Hz) / 66 dB (A) (60 Hz)
Weight	Hood: 14 kg; dust collector: 30 kg

*Domestic model also available as IPC-60 (EDP No. 621607) with an input power supply of 100 VAC. Please inquire at time of order.



IPC-A4 Ion Parts Cleaner

(EDP No. 621610)

Ionizing method: Piezoelectric high-frequency AC corona discharge
Electrode needles: Tungsten

Innovative dust collection system with self-adhesive polyurethane gel sheets. No built-in dust collector.



Ionizing air blow can be switched between Pulse mode and Continuous mode.
With a built-in sensor. The operation time is adjustable.

CE RoHS

- Compact desktop type (W:300mm x D:250mm)
- An infrared sensor is used to emit a stream of dust-eliminating air.
- Pulse mode uses bursts of air to vibrate dust and forcibly dislodge it. The operation time is adjustable.
- Dislodged dust will be collected by the adhesive gel sheets.
- The adhesive gel sheets are washable and reusable.
- With no built-in dust collector, its power consumption is substantially reduced (Only 17W).
- The top of the booth has a magnifying lens for checking dust.



Primary specifications

Dust collection method	Polyurethane gel sheets
Applied voltage	AC6.0kV (p-p)
Input voltage/ Current consumption	DC24V±5% / 700mA
Power consumption	17W
Applied fluid	0.1~0.3MPa (Clean air)
Air supply hose diameter	φ 6×φ 4mm
Air consumption	187ℓ/min (0.3MPa, Continuous mode)
Modes for Ionizing blow	Continuous mode High-frequency pulse mode (Cycle length: 100msec, Pulse width: 40msec) Low-frequency pulse mode (Cycle length: 250msec, Pulse width: 100msec)
OFF-timer setting	1, 2, 5, 10, 30 seconds (selected by DIP switch)
Ozone generation	Less than 0.05ppm (measured 50mm from device)
Operating temperature and humidity	5~40°C / 35~65%RH (non-condensing)
Noise	86.5dB(A) (0.3MPa, Continuous mode, 1m distance in the front position)
Weight	6.0kg
Accessories	Power supply transformer (Input AC100~240V Output DC24V), Mounting bracket for N-2, Electrode Needle Replacement Screwdriver (separately sold)

Option parts



Additional adhesive layer kit (separately sold)

IPC-A4PG

This second layer of adhesive gel is attached to the unit for better trapping efficiency and decreases the frequency of fan filter replacement.

Single-layer



STANDARD

Double-layer



OPTION

Eye-01 Electrostatic Field Meter

(EDP No. 621602)

This compact static electricity measuring instrument can measure static potential and ionizer's ion balance performance.



CE RoHS

- This multifunctional static electricity measuring instrument is built around a one-chip microcomputer.
- Includes a focus ring LED to serve as a guideline for establishing correct measuring distance.
- Includes a plate for taking ion balance measurements.
- Features a large, easy-to-see color LCD display.
- Comes with a soft storage case for improved portability.
- Complies with ISO 9000 traceability standards. Calibration tables and certificates can be issued for this instrument.

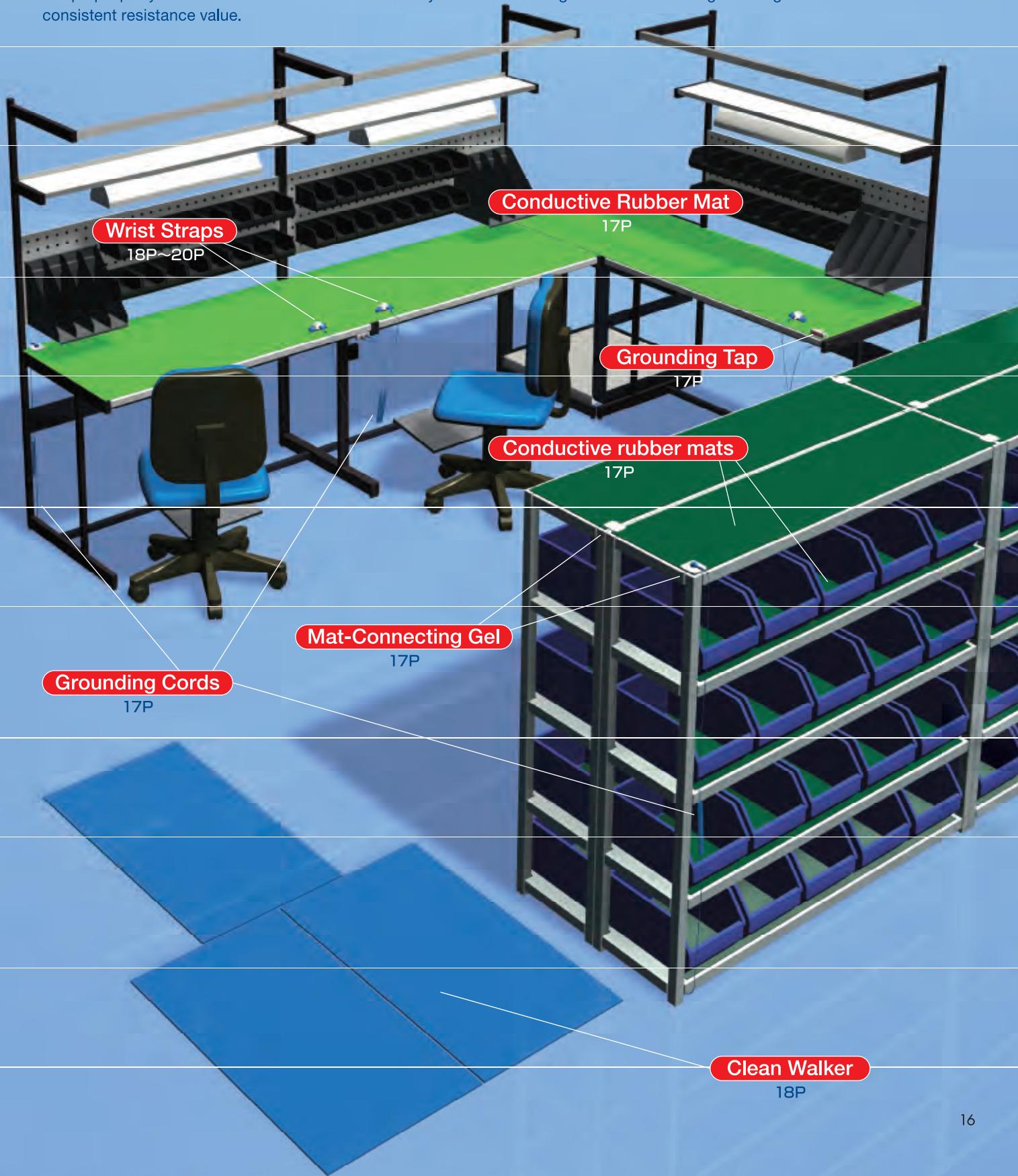
Primary specifications

Measurement range	Charge potential measurement: ±0 to ±1.49 kV (LO range) ±1.0 to ±20.0 kV (HI range)
	Ion balance measurement: 0 to ±200 V
Measuring distance and direction	25 ±0.5 mm (from device to charged object), in front of sensor opening
Ambient temperature and humidity	10°C to 40°C, 60% RH or less
Display	Widescreen LCD display
Supply voltage	One 9V battery (006P)
Weight	Instrument: 140 g (including battery) ion balance measurement plate: 30 g
Accessories	1 ion balance measurement plate, 1 battery (006P), soft case, 1 grounding cord (includes alligator clip)

Static electricity countermeasures for workers, work benches, and parts shelves handling devices that are sensitive to static electricity

Conductive Rubber Mat, Mat-Connecting Gel, Grounding Tap, Grounding Cords

The key to static electricity countermeasures is maintaining an environment that prevents static electricity from being generated or building up on operators' bodies and work benches. It is necessary for operators to use wrist straps properly and for work benches to be securely connected to a ground source with grounding cords with a consistent resistance value.



Conductive Rubber Mat EPA Working Mat

Designed for use with work benches that require anti-static measures to ensure safe handling of semiconductors, electronic components, and other devices.

2m
roll LG-20

10m
roll LG-100 / SG-100



LG-20 (EDP No. 621466)

LG-100 (EDP No. 621607)

SG-100 (EDP No. 621461)



- Offers uniform, consistent conductive performance.
- Features a matte surface finish, reducing reflections and helping prevent eye fatigue.
- Features a soft surface that resists bending. (Hardness A type 64)

Primary specifications

Product name	Conductive rubber mat
Model no.	LG-100/20, SG-100
Color	Light green, Green
Size	LG-20: 1 m (W) × 2 m (L) × 2.0 mm (t) LG-100/SG-100: 1 m (W) × 10 m (L) × 2.0 mm (t)
Weight	LG-20: 6 kg/roll LG-100/SG-100: 29.5 kg/roll

Please contact VESSEL for more information about the availability of other colors.



LG-100/20 Light green



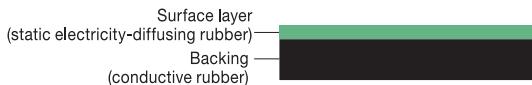
SG-100 Green

Conductivity

10^6 to 10^8 Ω^*

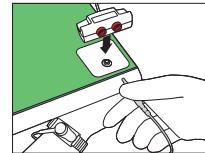
*Value varies with measurement environment conditions such as temperature and humidity.

Structure



EPS-GT2 Grounding Tap (EDP No. 621402)

Provides ground connection points for anti-static wrist straps and conductive rubber mats.



Primary specifications

Product name	Grounding tap
Grounding cord	Approx. 3.0 m (with round jack)
Resistance value	Approx. 1 M Ω between device and grounding cord (round jack)
Material	Case: ABS plastic; connection hardware: stainless steel
Contents (quantity)	20 pcs

EPG-01 (EDP No. 621481) / EPG-02 Mat-Connecting Gel (EDP No. 621482)

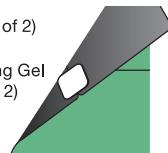
Made from medical-grade conductive gel, VESSEL's mat-connecting gel eliminates the time-consuming need to string together eyelets.



EPG-01



Mat-Connecting Gel (with hook)
EPG-01 (set of 2)



Mat-Connecting Gel EPG-02 (set of 2)

Primary specifications

Product name	EPG-01: Mat-connecting gel with hook (set of 2)
	EPG-02: Mat-connecting gel (set of 2)
Size	40 mm × 40 mm
Length	EPG-01: Max. length of 1.8 m; EPG-02: max. length of 3.0 m
Packaging (quantity)	20 sets

EPC-18 (EDP No. 621393) / EPC-30 Grounding Cord (EDP No. 621394)



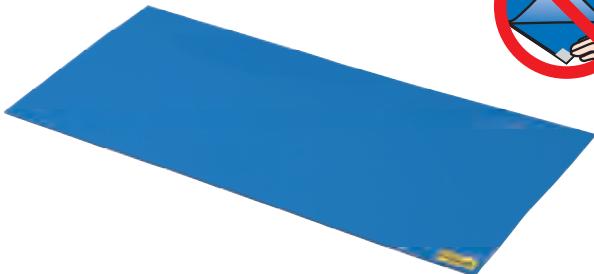
EPC-30

Designed to connect to a mat-connecting gel (includes a hook) or grounding tap. Available in 1.8 m and 3.0 m lengths.

Primary specifications

Product name	Grounding cord
Built-in resistance	1 M Ω
Length	EPC-18: Max. length of 1.8 m; EPC-30: max. length of 3.0 m
Accessories	1 alligator clip
Contents (quantity)	20 cords

Soft and thick polyurethane gel mat effectively collects dust particles. Washable and reusable.

**RoHS**

Eco-friendly product

- Its elastic surface gets into the grooves of shoe soles and cleans them effectively.
- Adhesive power is virtually intact even after 3-year use.

Warns the operator with light and sound when a grounding problem is detected.



The strap warns the operator with light and sound when a grounding problem occurs.

**RoHS**

Device marking: VESSEL uses this mark to indicate tools and devices that can be used in electrostatic protected areas (EPAs).

- Elastic band makes it easy to put the strap on and take it off.
- A sensitivity adjustment knob lets you fine-tune the detection status.
- Includes an LED to indicate remaining battery charge. A LOW BATTERY LED lights up when the remaining battery charge falls to 20% or below. The battery can be replaced.



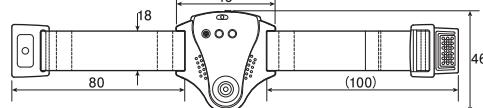
Primary specifications

Product name	Clean Walker
Model No.	CW-900B
Material	polyurethane
Color	Blue
Hardness	ASKER C3
Electroconductive	Insulator
Size	W 900mm × L 500mm × t 5.0mm
Weight	Approx. 2.4 kg

Primary specifications

Product name	Ground Sensor
Applications	EPS-01: For use in ESD protected areas and by device operators EPS-01G: For use in general work environments and by device operators
Strap length	Approx. 180 mm
Resistance value	Approx. 2 MΩ between band and grounding cord
Accessories	Grounding cord (EPC-18 with max. length of 1.8 m and 1 MΩ current-limiting resistance) Test battery (already installed in CR1220) Alligator clip

Dimensions



Fits the wrist comfortably and can be washed for repeated use.



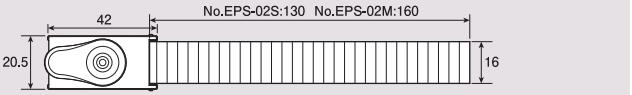
Can be easily cleaned using an ultrasonic cleaner, ensuring that the band is always clean and ready for use. (Use any suitable commercially available cleaner.)

RoHS

Device marking: VESSEL uses this mark to indicate tools and devices that can be used in electrostatic protected areas (EPAs).

- Stretchable band is easy to put on and take off. Available in two sizes (small/medium).
- Metal band is designed to minimize dust generation.
- Band is designed with just the right amount of curvature so that it fits the wrist perfectly.
- Can be easily cleaned using an ultrasonic cleaner, ensuring that the band is always clean and ready for use.

ANTI-METAL ALLERGY**Primary specifications**

Product name	Metal band
Applications	Ideal for use in clean rooms and in IT-related manufacturing settings with numerous temporary employees.
Strap length	EPS-02M: 160 mm; EPS-02S: 130 mm
Resistance value	Approx. 1 MΩ between band and grounding cord
Accessories	Grounding cord (EPC-18 with max. length of 1.8 m and 1 MΩ current-limiting resistance) Alligator clip
Dimensions	

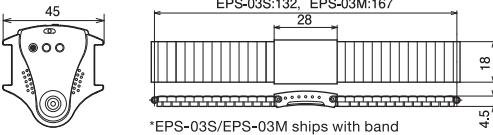
Designed to minimize dust generation, this ground sensor can be used in clean rooms.

**RoHS**

Device marking: VESSEL uses this mark to indicate tools and devices that can be used in electrostatic protected areas (EPAs).

- Alarms with both light and sound to warn the user if a grounding problem is detected due to the plug being disconnected, a break in the grounding cord, or poor contact with the wearer's skin.
- A sensitivity adjustment knob lets you fine-tune the detection status to particular work areas.
- Stretchable band is easy to put on and take off. Available in two sizes (small/medium).
- Includes an LED to indicate remaining battery charge. A LOW BATTERY LED lights up when the remaining battery charge falls to 20% or below. The battery can be replaced.

ANTI-METAL ALLERGY**ALARM CHANGE BATTERY****ALARM BAD GROUND****Primary specifications**

Product name	Ground sensor (metal band)
Applications	For use in clean rooms, general work environments, and by device operators
Strap length	EPS-03M: 167 mm; EPS-03S: 132 mm
Resistance value	Approx. 2 MΩ between the band and grounding cord
Accessories	Grounding cord (EPC-18 with max. length of 1.8 m and 1 MΩ current-limiting resistance) Test battery (already installed in CR1220) Alligator clip
Dimensions	

*EPS-03S/EPS-03M ships with band and sensor connected.

Complies with IEC 61340-5-1 for peace of mind.



The part of the strap that comes into contact with the wearer's skin uses high-grade stainless steel (316L) so that it can be worn by individuals with a metal allergy.

RoHS

Device marking: VESSEL uses this mark to indicate tools and devices that can be used in electrostatic protected areas (EPAs).

- Adjustable strap fits the wrist comfortably.
- Simple buckle keeps extra strap out of the way.
- Cord is designed to stay out of the way, leaving you free to work.
- Safety-conscious design keeps the conductive area from being exposed on the surface of the wrist strap.

An economy pack of 20 sets of anti-ESD wrist strap.
Comes in a low-cost package.

e-BOX

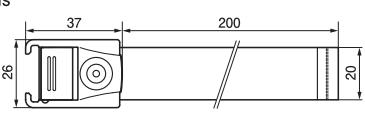
Economy pack of 20 sets

**RoHS**

Device marking: VESSEL uses this mark to indicate tools and devices that can be used in electrostatic protected areas (EPAs).

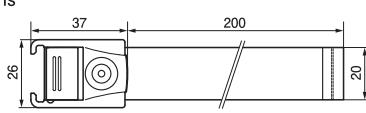
- Adjustable strap fits the wrist comfortably.
- Simple buckle keeps extra strap out of the way.
- Cord is designed to stay out of the way, leaving you free to work.
- Safety-conscious design keeps the conductive area from being exposed on the surface of the wrist strap.

Primary specifications

Product name	e-Box of wrist straps for use as ESD countermeasures
Applications	For use in general work environments; ideal for use in IT-related manufacturing settings with numerous temporary employees.
Strap length	Approx. 200 mm
Resistance value	Approx. 1 MΩ between strap and grounding cord
Accessories	Grounding cord (EPC-18 with max. length of 1.8 m and 1 MΩ current-limiting resistance) Test battery (already installed in CR1220) Alligator clip
Dimensions	

ANTI-METAL ALLERGY

Primary specifications

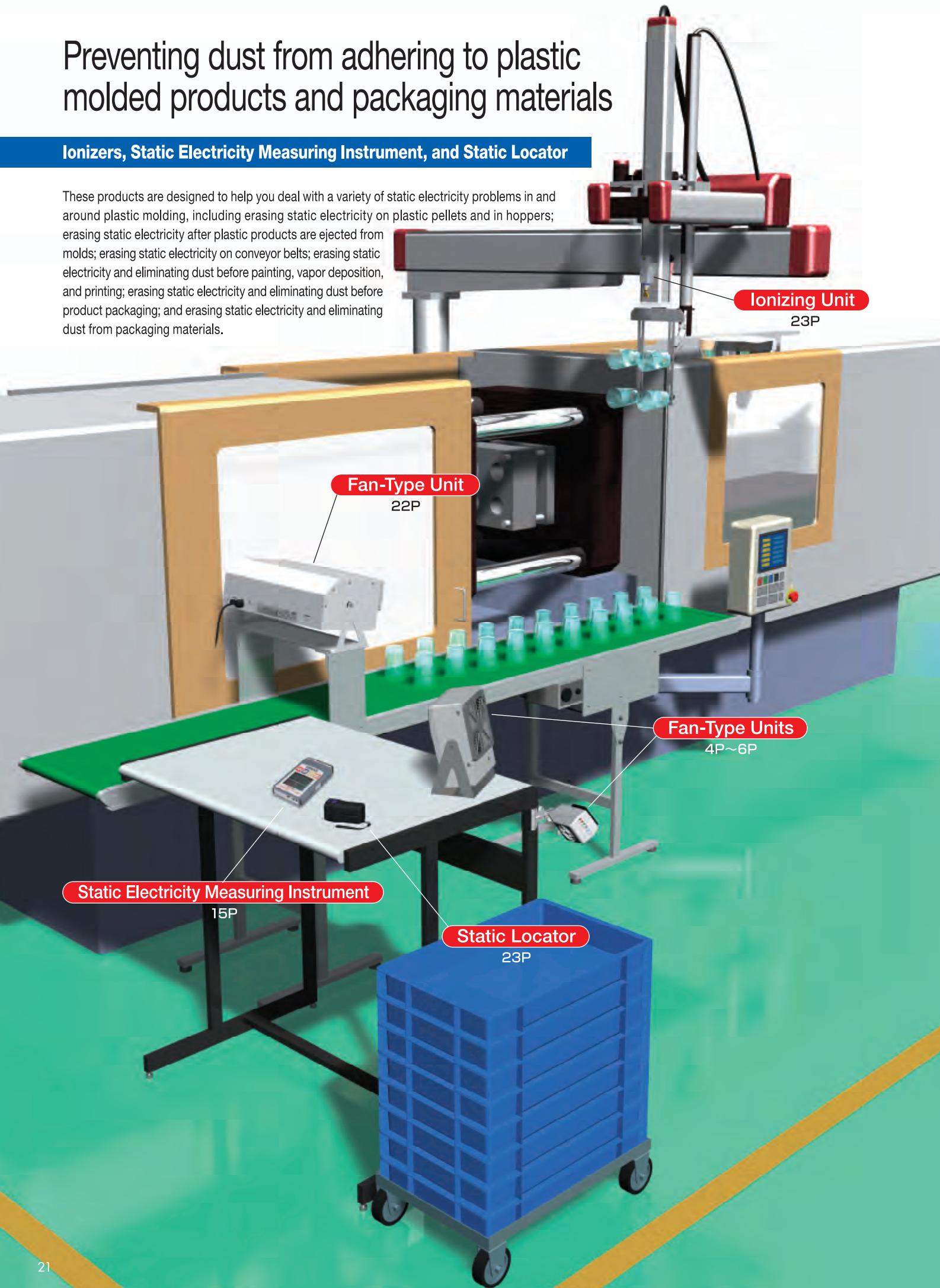
Product name	e-Box of wrist straps for use as ESD countermeasures
Applications	For use in general work environments; ideal for use in IT-related manufacturing settings with numerous temporary employees.
Strap length	Approx. 200 mm
Resistance value	Approx. 1 MΩ between strap and grounding cord
Accessories	Grounding cord (EPC-18 with max. length of 1.8 m and 1 MΩ current-limiting resistance) Test battery (already installed in CR1220) Alligator clip
Dimensions	

ANTI-METAL ALLERGY

Preventing dust from adhering to plastic molded products and packaging materials

Ionizers, Static Electricity Measuring Instrument, and Static Locator

These products are designed to help you deal with a variety of static electricity problems in and around plastic molding, including erasing static electricity on plastic pellets and in hoppers; erasing static electricity after plastic products are ejected from molds; erasing static electricity on conveyor belts; erasing static electricity and eliminating dust before painting, vapor deposition, and printing; erasing static electricity and eliminating dust before product packaging; and erasing static electricity and eliminating dust from packaging materials.

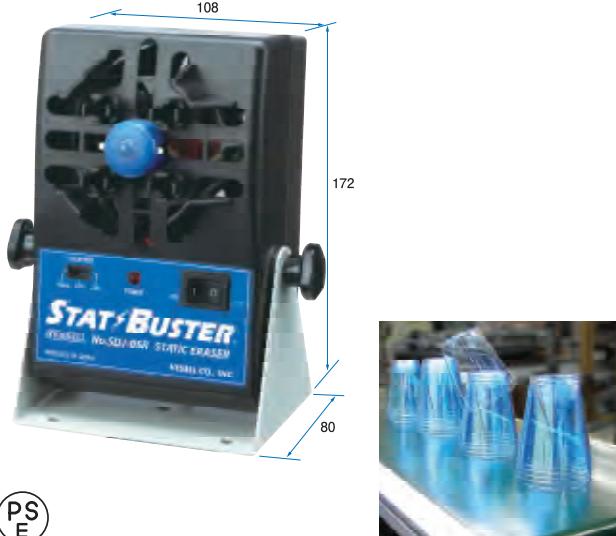


SDJ-05R

Fan-type Ionizer
(EDP No. 621356)

Ionizing method: DC high-voltage corona discharge
Electrode needles: Stainless steel

For "fan off" static electricity erasing without
the effects of blowing air.



PS
E

- Compact, lightweight fan-type unit can be installed almost anywhere.
- Uses a 100 VAC power supply, allowing it to be installed immediately.
- Airflow can be set to high, low, or off. "Fan off" setting maintains optimal conditions in the work environment.
- The ion balance can be adjusted as needed.
- Electrode needles use a pin connector design and can be removed for easy maintenance.

90 MM FAN POWER SUPPLY 100 VAC FAN OFF ADJUSTABLE ION BALANCE

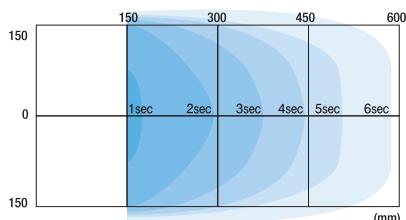
Primary specifications

Applied voltage	± 6.5 kVDC
Power supply and current consumption	100 VAC $\pm 10\%$ (50/60 Hz), 150 mA (max.)
Weight	920 g
Airflow	1.0 m ³ /min (at max. airflow)
Noise level	46.9 dBA (measured 1 m from device at max. airflow)
Ozone production	0.05 ppm or less (measured 50 mm from device at max. airflow)
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)

Static erasing performance

Ion balance: Within ± 50 V; Decay time: 2 sec or less

Static erasing area



90 - 180 VAC

SDJ-14 JPN

(EDP No. 621365)

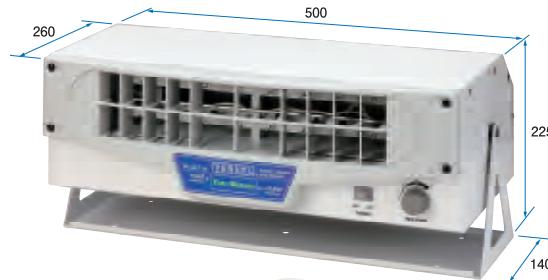
200 - 240 VAC

SDJ-14 EU

(EDP No. 621366)

Ionizing method: DC high-voltage corona discharge
Electrode needles: Stainless steel

This powerful ion blower features a large coverage area, making it ideal for use with large molded objects.



PS
E CE RoHS

- SDJ-14 is able to cover a static erasing area of 600 mm x 1,200 mm.
- Airflow can be set to high, middle, low, or off. Supports "fan off" operation.
- The ion balance can be adjusted as needed.
- Electrode needles use a pin connector design and can be removed for easy maintenance.
- A panel indicator lets you check the unit's operating status at a glance. The indicator flashes red in the event of a high-voltage malfunction.

CROSS-FLOW FAN POWER SUPPLY 100 VAC POWER SUPPLY 200-240VAC FAN OFF ADJUSTABLE ION BALANCE ALARM H.V.

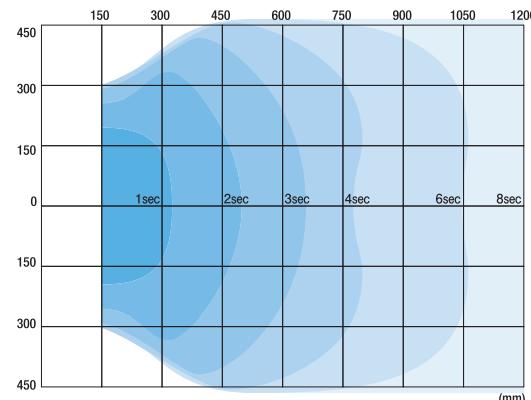
Primary specifications

Model No.	SDJ-14 JPN	SDJ-14 EU
EDP No.	621365	621366
Applied voltage	± 6.5 kVDC	
Power supply	90 - 128 VAC	200 - 240 VAC
current consumption	150mA	
Weight	8.8 kg	10.5kg
Airflow	3.3 m ³ /min (at max. airflow)	
Noise level	57.6 dBA (measured 50 mm from device at max. airflow)	
Ozone production	0.05 ppm or less (measured 50 mm from device at max. airflow)	
Operating temperature and humidity	5°C to 40°C, 35% to 65% RH (non-condensing, non-freezing)	

Static erasing performance

Ion balance: Within ± 30 V; Decay time: 1 sec or less

Static erasing area

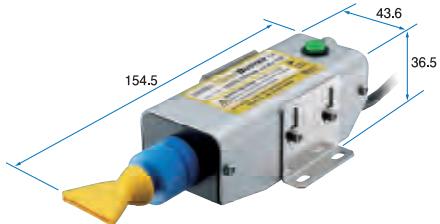


SDJ-03R

Static Electricity Eraser Unit
(EDP No. 621345)

Ionizing method: High-frequency AC corona discharge
Electrode needles: Stainless steel

This ionizer reliably erases static electricity at the target point. Its Flared Nozzle generates a wide air stream.



CE RoHS

- Compact, lightweight design is easily installed on target equipment.
- Includes mounting hardware that allows the height and angle of the eraser to be adjusted.
- Safety-conscious design features built-in discharge unit, high-voltage cable, and high-voltage power supply.
- Electrode needle unit features one-touch replacement.

LOW-VOLTAGE DRIVE
24 VDC AIR/N₂
MAX. 0.3 MPa INCLUDED TRANSFORMER
100-240 VAC

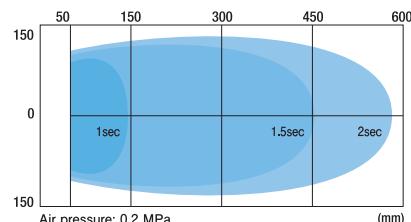
Primary specifications

Applied voltage	3.0 kVAC
Power supply and current consumption	24 VDC $\pm 5\%$, 80 mA (max.)
Weight	250 g
Air supply pressure	0.1 MPa to 0.3 MPa (use clean air; 0.2 MPa recommended)
Air supply hose diameter	6 mm \times 4 mm
Airflow	170 L/min (at 0.2 MPa)
Noise level	85.9 dBA (measured 1 m from device at 0.2 MPa)
Ozone production	0.05 ppm or less (measured 50 mm from device at max. airflow)
Operating temperature and humidity	0°C to 50°C, 35% to 65% RH (non-condensing, non-freezing)
Accessories	Power supply transformer No. AD24-IT-EX

Static erasing performance

Ion balance: Within ± 30 V; Decay time: 1 sec or less
(150 mm from front of device, 0.2 MPa, Standard Nozzle) (150 mm from front of device, 0.2 MPa, Flared Nozzle)

Static erasing area



Accessories



Power Supply Transformer
AD24-IT-EX
(EDP No. 806050)

Input: 100 to 240 VAC, 0.4 A
Output: 24 VDC, 0.75A

SDL-01

Static Locator
(EDP No. 621382)

Check for static charges and test the effectiveness of ionizers. Provides a simple digital readout of static electricity.



- Provides a digital readout of the potential of a charged object without making contact, making it easy to measure invisible static electricity.
- Displays measurements from 0 to ± 19.9 kV in 100 V increments every 0.5 seconds.
- Convenient, lightweight design is extremely portable. Comes with a soft storage case.
- Low-power-consumption design can be used for about 6 months on 4 AA batteries.

Primary specifications

Display range	0 to ± 19.9 kV (min. display increment of 0.1 kV)
Response time	0.5 sec, 50 mm (from device to charged object)
Detection distance and direction	in front of sensor opening
Ambient temperature and humidity	0°C to 40°C, 20% to 90% RH
Supply voltage	6 VDC (4 AA batteries)
Weight	170 g (including batteries)
Accessories	4 AA batteries, soft case



Eco-friendly product

Ion Parts Cleaner IPC-A4/Clean Walker CW-900B/Pulse Air Controller PAC-8/Silent Nozzle N-2WN

One of the emerging problems companies must tackle in the current society is environmental issue.

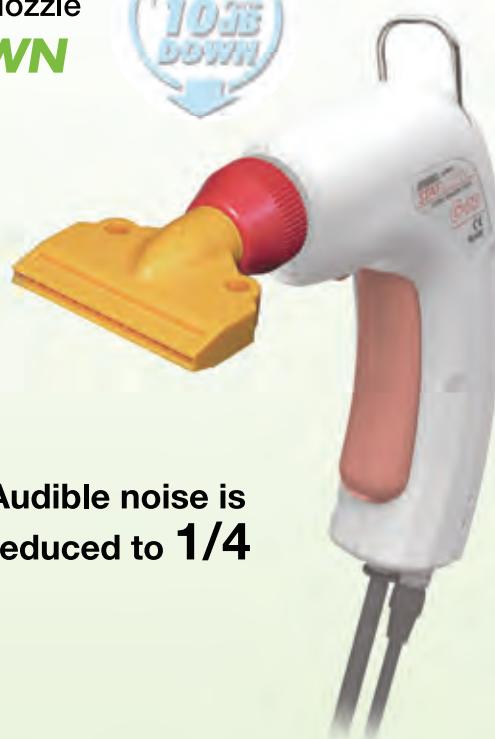
VESSEL has already started various eco-themed activities, such as green procurement, RoHS compliance, product life improvement, use of recycled material, resource saving, etc.

Pulse Air Controller
PAC-8



Slash your air consumption by **60%!**

Silent Nozzle
N-2WN



Audible noise is reduced to **1/4**

"Clean Walker" washable sticky mat
CW-900B



Less waste & Long-life

Ion Parts Cleaner
IPC-A4



Running cost reduced by a large margin
Only 17W power consumption

Options and replacement parts

For use at electronics plants

Electrode Needle Unit



Electrode Needle Unit
SF-9H
(EDP No. 806053)
Use with: SF-9



Electrode Needle Plate
F-12EH
(EDP No. 806055)
Use with: F-12E,3F-12



Front Cover with Integrated Electrode Needles
CF-30H
(EDP No. 806071)
Use with: CF-30

Filter



SDJ-08F
(EDP No. 806039)
Use with: SDJ-08S



SF-9F
(EDP No. 806052)
Use with: SF-9



F-12EF
(EDP No. 806054)
Use with: F-12E,3F-12



CF-30F
(EDP No. 806072)
Use with: CF-30

Power Supply Transformer



AD24-IT-EX
(EDP No. 806050)
Use with: SDJ-08S,SF-9,F-12E
Input: 100 to 240 VAC, 0.4 A
Output: 24 VDC, 0.75A



AD24-ITCF-EX
(EDP No. 806074)
Use with: CF-30
Input: 100 to 240 VAC, 1.2 A
Output: 24 VDC, 1.5A



AD24-IT19
(EDP No. 806080)
Use with: 3F-12
Input: 100 to 240 VAC, 1.2 A
Output: 24 VDC, 1.9A

For G7R-E



Standard Nozzle
(included)
G-7SN
(EDP No. 806057)



Tube-fitting Nozzle
(sold separately)
G-7TN
(EDP No. 806058)



Flared Nozzle
(sold separately)
N-2FN
(EDP No. 806086)



Silent Nozzle
N-2WN
(EDP No. 806087)



Brush: 60 mm bristles
(sold separately)
G-7B
(EDP No. 806059)



Soft Brush: 60 mm bristles
(sold separately)
G-7SB
(EDP No. 806062)



Electrode Needle Replacement
Screwdriver (separately sold)
G-7DR
(EDP No. 806061)



Electrode Needle
(included)
G-7H
(EDP No. 806056)



Speed Controller
(separately sold)
G-7SC
(EDP No. 621373)



G-7F
(EDP No. 621702)

Filter eliminates at least 99% of particles with a diameter of 0.01 µm or greater.
Install a 1 µm to 10 µm air filter and mist separator on your air compressor
before using this item.



Power Supply Transformer
(included)
AD24-ITC-E
(EDP No. 806067)



Relay Cable (5 m)
(separately sold)
G-7EC5
(EDP No. 621703)

Relay Cable (10 m)
(separately sold)
G-7EC10
(EDP No. 621704)

Relay cables are used to connect the G7R-E to its
dedicated power supply transformer (AD24-ITC-E).

For N-2



Flared Nozzle
N-2FN
(EDP No. 806086)



Tube-fitting Nozzle
N-2TN
(EDP No. 806085)



Silent Nozzle
N-2WN
(EDP No. 806087)



Shower Tube
N-2C6B
(EDP No. 621706)



Electrode Needle
(included)
G-7H
(EDP No. 806056)



Power Supply Transformer
AD24-IT-EX *
(EDP No. 806050)
Input: 100 to 240 VAC, 0.4 A
Output: 24 VDC, 0.75A

* When connecting this transformer to N-2, the connector
terminal should be cut off as it becomes unnecessary.



Speed Controller
(separately sold)
G-7SC
(EDP No. 621373)



G-7F
(EDP No. 621702)

Filter eliminates at least 99% of particles with a diameter of 0.01 µm or greater.
Install a 1 µm to 10 µm air filter and mist separator on your air compressor
before using this item.

For PAC-8



Power Supply Transformer
(included)
AD24-ITC-E
(EDP No. 806067)



G7R-E Connection Cable (sold separately)
G-7RC (2.5m)
(EDP No. 621705)

For Ion Parts Cleaner

HEPA filters designed for use in clean rooms are available (capable of collecting 99.7% of particles 0.3 μ m or greater in diameter).

Use with: IPC20-E, IPC40-E, IPC60-E
Please inquire.



High-brightness LED illumination unit

IPC-LED

Use with: IPC20-E, IPC40-E, IPC60-E
Please inquire.



Additional adhesive layer kit

IPC-A4PG

(EDP No. 806091)

Use with: IPC-A4

Adhesive gel sheet

IPC-A4G

(EDP No. 806091)

Use with: IPC-A4

Electrode needle (for N-2)

G-7H

(EDP No. 806056)

Use with: IPC-A4

Unwoven fan filter (SPC set)

IPC-A4F

(EDP No. 806092)

Use with: IPC-A4

For B-series



Electrode Needle Unit

B-00H

(EDP No. 806101)



End Brackets (set of 2 with set screws)

B-EB

(EDP No. 806102)



Middle Bracket (with set screws)

B-MB

(EDP No. 806103)



Remote Control

RMC-01

(EDP No. 806104)



Branch Adapter

B-SP2

(EDP No. 621531)



Power Supply Separator

B-SP3

(EDP No. 621532)



Power Supply Cable

CT-5

(EDP No. 621533)



Power Supply Transformer

AD24-IT-EX

(EDP No. 806050)

Input: 100 to 240 VAC, 0.4 A
Output: 24 VDC, 0.75A



Power Supply Transformer

AD24-ITCF-EX

(EDP No. 806074)

Input: 100 to 240 VAC, 1.2 A
Output: 24 VDC, 1.5A



Power Supply Transformer

AD24-IT19

(EDP No. 806080)

Input: 100 to 240 VAC, 1.2 A
Output: 24 VDC, 1.9A

For SH-series



Branch Box

SH-SP2

(EDP No. 621552)



Relay Cable (3 m)

SH-EC3

(EDP No. 621553)



Relay Cable (5 m)

SH-EC5

(EDP No. 621554)

For EPS-01



Replacement Bands for EPS-01/EPS-01G

EPB-01

(EDP No. 621395)



For use at resin molding plants



Electrode Needle

SDJ-02RH

(EDP No. 806031)

Use with: SDJ-03R



Electrode Needle

SDJ-05RH

(EDP No. 806044)

Use with: SDJ-05R, SDJ-14



Filter

SDJ-14F

(EDP No. 806045)

Use with: SDJ-14



Power Supply Transformer

AD24-IT-EX

(EDP No. 806050)

Use with: SDJ-03R

Input: 100 to 240 VAC, 0.4 A

Output: 24 VDC, 0.75A



Pinpoint Nozzle

SDJ-03PN

(EDP No. 806038)

Use with: SDJ-03R



Flared Nozzle

SDJ-03FN

(EDP No. 621334)

Use with: SDJ-03R



Standard Nozzle

SDJ-02SN

(EDP No. 621335)

Use with: SDJ-03R

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URL : <http://www.vessel.co.jp/english/>

- Product specifications, dimensions, pricing, and other information are subject to change without notice.
- Static electricity erasing capability values given in this catalog were obtained in our measurement environment. Your results may differ depending on the operating environment.

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