

# Black and White for your application



€ RoHS

G7R-E BBZ-E PAC-8 **STAT**:CLEAN

Gun-type Ionizers

# "Top Sell" model for general applications



## **Easy maintenance**

0.1

Screw type interchangeable nozzle.

Easy replacement and cleaning of electrode.

(Image shows the G7R-E)

0.2

0.4

Air pressure (MPa)

0.5



### Various options available

Nozzles; e.g., Standard Nozzle, Silent Nozzle, and Brush are replaceable depending on the work.(Image shows Silent Nozzle N-2WN)



### Low voltage 24 V DC power supply

24VDC low voltage input. Safe with no high voltage wires exposed.



### An industry first LED light

Super luminosity LED lamp illuminating dust particles.(Image shows the G7R-E)

10,000,000-cycle tested Robotic cable adopted.



### RoHS / CE

Comply with the directive RoHS. Certified CE marking. RoHS ∈€

## Ergonomic and powerful at hand!

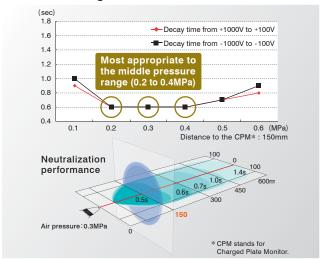


### Ideal for neutralization and dust elimination of precision parts at hand, for example, in cell production.

- LED light integrated to make dust visible.
- Ergonomic grip enabling operator to hold it at a right angle.
- Non-slip grip suitable even for clean room gloves.
- · Lightweight and less fatigue of operators.



### Accurate ionizing at hand



### Specifications

Model	G7R-E
Ion generation method	Piezoelectric high-frequency AC corona discharge
Applied voltage	2.0 kVAC
Power supply	24 VDC ±5%
Current consumption	74 mA (typ. When using LED light)
Ion balance (measured at 150mm)	within ±10 V (at 0.3MPa)
Decay time (measured at 150mm)	within 0.5 sec (at 0.3MPa)
Neutralization area	50 mm ∼ 600 mm
Dimensions (H $\times$ W $\times$ D)	150×36×105 mm
Weight	198 g
Air supply pressure	0.1~0.6MPa
Air supply hose diameter	Φ6×Φ4mm
Air flow	184 l/min (at 0.3MPa) / 336 l/min (at 0.6MPa)
Noise level (measured at 1m)	89.1dBA (at 0.3MPa) / 97dBA (at 0.6MPa)
Ozone production (measured at 50mm)	0.05 ppm or less (at 0.3MPa)
Operating temperature	5~40°C
Humidity	35~65% RH (non-condensing, non-freezing)
Accessories	AC Adapter AD24-ITC-E Input voltage: 100 VAC~240VAC (50/60 Hz) 0.4 A Output voltage: 24 VDC 0.75 A Standard Nozzle G-75N. Instruction manual

# Newly developed Enormous power over big plastic products

# BBZ-E



### Ideal for neutralization and dust elimination of big plastic products made, for example, by standing up.

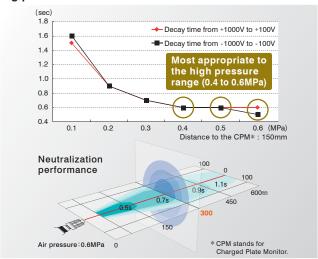
- LED light integrated to make dust visible.
- Vibration resistant screw-in connector.
- Intensive neutralization with a silent and high discharge air nozzle.

  Less noticeable black color from dirt.
- The long power cable (5 m) allows work in a widespread area.
- Lightweight and less fatigue of operators.



AC Adapter

### Unique performance by high pressure blow-off for such big products



### Specifications

Model	BBZ-E
Ion generation method	Piezoelectric high-frequency AC corona discharge
Applied voltage	2.0 kVAC
Power supply	24 VDC ±5%
Current consumption	74 mA (typ. When using LED light)
Ion balance (measured at 150mm)	within ±10 V (at 0.6MPa)
Decay time (measured at 150mm)	within 0.5 sec (at 0.6MPa)
Neutralization area	50 mm ~ 600 mm
Dimensions (H $\times$ W $\times$ D)	152×36×132 mm
Weight	198 g
Air supply pressure	0.1~0.6MPa
Air supply hose diameter	Φ6×Φ4mm
Air flow	194 l/min (at 0.3MPa) / 344 l/min (at 0.6MPa)
Noise level (measured at 1m)	77.3dBA (at 0.3MPa) / 85.5dBA (at 0.6MPa)
Ozone production (measured at 50mm)	0.05 ppm or less (at 0.3MPa)
Operating temperature	5~40°C
Humidity	35~65% RH (non-condensing, non-freezing)
Accessories	AC Adapter AD24-ITB-E Input voltage: 100 VAC~240VAC (50/60 Hz) 0.4 A Output voltage: 24 VDC 0.75 A Instruction manual

# Slash your air consumption by 60%!\* Ecological solution for neutralization with pulse air

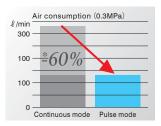


### Specifications

•	
Model	PAC-8
Power supply	24 V DC±5%
Current consumption	70 mA (PAC-8 only)
Dimensions (H $\times$ W $\times$ D)	85.5×162×56.2 mm
Weight	610 g
Air supply hose diameter	Φ8×Φ6mm
Air flow	See chart to right
Output power supply	24 VDC±5% 680 mA (when connected to separately available AD24-ITC-E)
Operating temperature	5~40°C
Humidity	35~65 % (non-condensing, non-freezing)
Accessories	Instruction manual, 8 mm/6 mm conversion plug,

### **Energy-saving**

Pulse mode cuts down 60%\* of air consumption, compared to continuous mode.



### **Higher efficiency**

In pulse mode, intermittent air vibrates dust particles and blows them off. Select either high-frequency pulse or low-frequency pulse in accordance with the application.





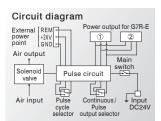


### Wide connectivity

Can be used with other VESSEL ionizers such as G7R-E, N-1, N-2, and Bar types.

(BBZ-E is not connectable.)

The built-in solenoid valve is a consumable part. (Actual measured lifetime of the solenoid valve in a sample unit : 200 days in pluse mode HI or 500 days in pulse mode LOW, for 6-hour-operation, This is just referential, not guaranteed data.)



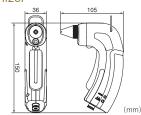
### Air flow

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

\* Air consumption figures in pulse mode are theoretical and do not include the losses that occur while the solenoid valve opens and closes.

### **Dimensions**

### G7R-E Gun-type Ionizer



### Replacement parts

Standard Nozzle	G-7SN	(included)
Electrode Needle	G-7H	(included)
AC Adapter	AD24-ITC-E	(included)

### Optional parts

Tube-fitting Nozzle	N-2TN	(sold separately)
Brush: 60 mm bristles	G-7B	(sold separately)
Electrode Needle Replacement Screwdriver	G-7DR	(separately sold)
Flared Nozzle	N-2FN	(sold separately)
Silent Nozzle	N-2WN	(sold separately)
Soft Brush: 60 mm bristles	G-7SB	(sold separately)
Speed Controller	G-7SC	(separately sold)
Micro filter	G-7F	(separately sold) *1
Relay Cable (5 m)	G-7EC5	(separately sold) *2
Relay Cable (10 m)	G-7EC10	(separately sold) *2

Micro filter avoids 99% or more of particles of a 0.01 µm diameter.

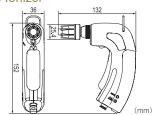
Install a 1  $\mu$ m to 10  $\mu$ m air filter and mist separator on your air compressor before using this item.

Relay Cable is used to connect the G7R-E to its dedicated AC Adapter (AD24-ITC-E).

**WARNING** 

- · Read the instruction manual carefully before using the unit.
- Do not use this unit in environments that require explosion-proofing.
- Do not wet with water, oil, solvent, etc. as this unit applies high voltage.

BBZ-E Gun-type Ionizer



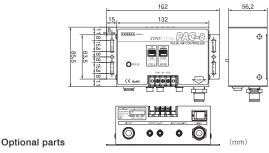
BB-ZSN (included) G-7H (included) AD24-ITB-E (included)

### PAC-8 Pulse Air Controller

Replacement parts Silent Straight Nozzle

Electrode Needle

AC Adapter



G7R-E Connection Cable AC Adapter

G-7RC (2.5m) (sold separately) AD24-ITC-E

- · Avoid dew condensation as it can cause electric shock and product breakage.
  - Do not touch the electrode needles as they are applied with high voltage. Also keep your operation tools and wirings away from the unit.

# **VESSEL CO., INC.**

17-25, Fukae-Kita 2-chome, Higashinari-ku, Osaka 537-0001 JAPAN Tel: +81(0)6 6976 7778 Fax: +81(0)6 6972 9441

### **VESSEL EUROPE**

6, avenue du 1er Mai, ZAE Les Glaises, 91120 Palaiseau FRANCE Tel : +33(0)1 69 19 17 42 Fax : +33(0)1 69 19 42 20

E-mail: export@vessel.co.jp URL: http://www.vessel.co.jp/english/

• For improvement, the above specifications, measurements, and prices are subject to change without notice

### Distributed by

Printed in Japan