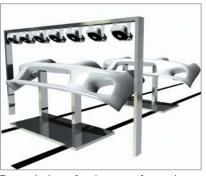
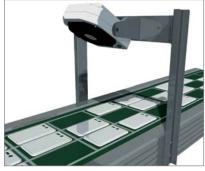
### **Applications**





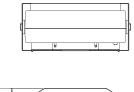


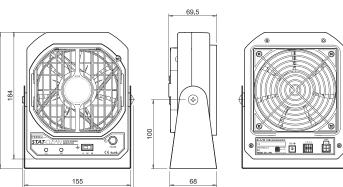
Pre-painting after bumper formation

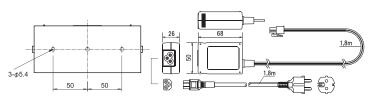
Film winding and unwinding

Preventing dust adherence on formed parts

#### **External dimensions**







#### **Specifications**

## F120R-E

Piezo high-frequency AC Corona discharge method				
AC10kV (p-p)				
24VDC ±5% 700m A (max.)				
H198×W162×D70mm (with stand)				
<b>0.9</b> kg				
3.66m³ /min (at max.airflow)				
61dBA (max. and straight airflow) (measured at 1m) (measured values)				
0.05ppm or less (measured 50mm)				
High voltage output stop(red LED), fan locked(red LED)				
Fan motor rotation monitoring function (Detecting rotation lock) High-voltage output shut down function(overload detection), Front cover safety device (circuit cut off when open)				
5 $\sim$ 40 $^{\circ}$ C 35 $\sim$ 65 $^{\circ}$ RH (with no dew condensation or freezing)				
0~60°C 35~85%RH (with no dew condensation or freezing)				
150 mm to 900 mm				
Non-hazardous place indoors				
within 1.5sec (at max.airflow,straight,measured at 300mm) (measured values)				
within ±10V				
Body : Flame-retardant ABS resin				
Stand : Stainless steel				
Front cover : Flame-retardant ABS resin				
Electrode needles : Stainless steel				
Instruction Manual, AC adapter AD-24IT-EX				

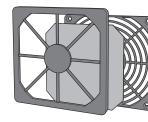
#### Replacement parts

Front Cover w/Electrode Needles F-120RCH



Options

Filter set F-120FS



Filter F-12EF



# **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**

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

oduct specifications, dimensions, pricing, and other information are subject to change without notice. •Static electricity erasing capability values given in this catalog were obtained in

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For Plastic and electronic parts

Manufacturing, assembly, and inspection

# "Authentic ionizing performance"

**VESSEL** 



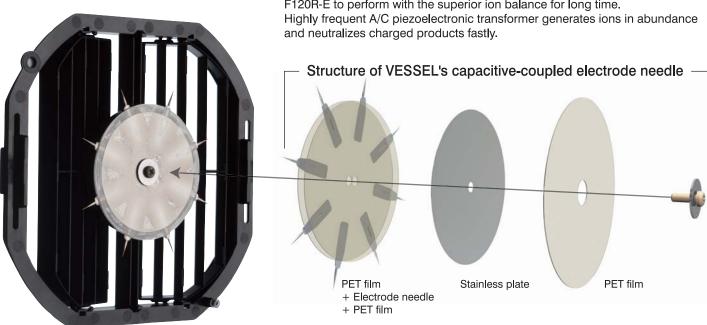
**STAT**:CLEAN

F120R-E

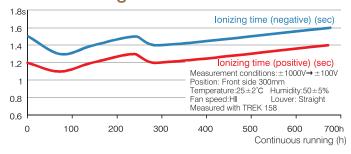
**Fan-type Ionizer** 

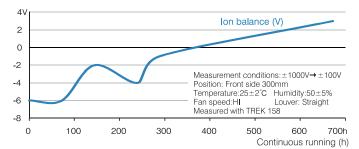
Unique capacitive-coupled electrode needles for

## stable and long-lasting ionizing performance



#### **Static Erasing Performance**





Less concern about reverse charging

Ilon balance is within ±10V. (our measured values)

Good for electronic parts vulnerable to static electricity

**External grounding terminal** 

#### Slim and compact body

VESSEL's newly developed compact piezoelectronic transformer

### Clear operation status display



The new alarm function uses a 2-color LED. the nomal operation.

### Low-voltage 24VDC

**RoHS/CE Standards** 

The input voltage is a 24VDC low voltage which enhances safety when assembled into equipment.



# This ionizer is RoHS compatible and CE certified.

The lamp lights in green when the power is ON, showing

The red light indicates various errors. Alarms can also be externally output.

### Easy maintenance

The electrode needle unit is set into the front cover, can be easily replaced.

#### VESSEL's patented unique capacitive-coupled electrode needles enable the F120R-E to perform with the superior ion balance for long time.

### **Butterfly Louver**

#### Straight

Airflow:HI

Straight

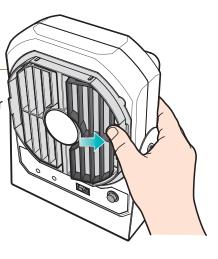
Keep both side of the louver on the original position ...Air flows straight.



#### Wide

Press outer side of the louver ...Air is dispersed.

Butterfly louver for flexible setting of ionizing area

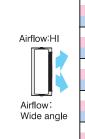


#### Straight



Ion balance(V) Decay time + (s

	900mm	600mm	300mm	150mm
m	-	-	-	-
300mm	-	-	-	-
35	-	-	-	-
m	+2V	+1V	-1 V	-
150mm	5.5s	6.3s	15.1s	-
15	8.0s	9.1s	24.8s	-
	-1 V	-1 V	-1 V	-1V
Omm	3.0s	2.0s	1.2s	1.0s
	4.0s	2.5s	1.4s	1.0s
18	+2V	+1V	-3V	-
150mm	6.0s	5.6s	12.6s	-
15	8.2s	7.1s	16.7s	-
E	-	-	-	-
300mm	-	-	-	-
18				



1.3s



2.1s

2.2s

Wide

+3V 17.2s

18.2s

+1V

10.5s

Decay time—(s) +2V 6.9s 8.8s +1V

+2V

8.9s

12.4s

6.8s +1V

6.2s

Ion balance(V)

Decay time + (s'

	150mm	300mm	600mm	900mm	
	-	-	-	-	II.
	-	-	-	-	300mm
	_	_	_	-	30
Airflow:MD	-	+2V	+2V	+1 V	Ш
7 (III)OW-IVID	-	17.5s	9.2s	8.2s	150mm
	-	23.6s	12.8s	10.8s	15
	+2V	+1V	+1V	+1V	
	1.3s	1.6s	2.4s	3.8s	Omm
	1.3s	1.8s	3.1s	5.0s	0
الحيا	-	+1V	+2V	+2V	I
Airflow:	-	17.3s	6.9s	7.5s	150mm
Straight	-	25.0s	8.4s	9.5s	15
	-	-	-	-	ΙL
	-	-	-	-	300mm
	-	-	-	-	3

	150mm	300mm	600mm	900mm	
	-	-	-	-	m.
	-	-	-	-	300mm
	-	-	-	-	30
fl 11.0	-	-	+2V	-1 V	a.
rflow:LO	-	-	11.3s	10.5s	150mm
	-	-	15.1s	15.6s	15
	-1V	+1V	-1 V	+1 V	٥
	1.6s	1.9s	2.8s	4.4s	Jmm
	1.5s	2.2s	3.6s	5.9s	٥
	-	-	+2V	+1V	m.
rflow:	-	-	9.3s	8.7s	SOmm
raight	-	-	10.7s	12.4s	15
	-	-	-	-	mu



	150mm	300mm	600mm	900mm	
	13011111	OOOIIIII	+1V	+1V	_
	-	-			300mm
	-	-	7.8s	9.1s	8
	-	-	9.7s	12.4s	ĕ
	<b>-</b> 3V	<b>-</b> 3V	+1V	+1V	딭
	3.6s	2.9s	4.0s	6.7s	150mm
	4.0s	3.3s	5.1s	8.8s	15
	-2V	-2V	+1V	+2V	_
	1.4s	2.5s	6.3s	10.9s	0mm
	1.5s	2.8s	9.9s	14.1s	
	-3V	-1V	+1V	+1V	50mm
	2.4s	2.7s	3.8s	6.1s	Ö
)	2.4s	3.0s	4.7s	8.4s	15
	-	-	-1 V	+1V	ш
	-	-	10.1s	7.1s	300mm
	-	-	13.2s	9.5s	30

	-	300mm	
	-	Įğ	
	-	30	
2V	-1 V	ш	A inflament O
.3s	10.5s	150mm	Airflow:LO
.1s	15.6s	15	
1 V	+1 V	_	
8s	4.4s	0mm	
6s	5.9s	0	
2V	+1V	150mm	
3s	8.7s	ő	Airflow:
.7s	12.4s	15	Wide angl
	-	0mm	
	-	ĕ	

	150mm	300mm	600mm	900mm	
	-	-	+2	+1	Ш
	-	-	8.6s	11.7s	300mm
	-	_	11.2s	14.3s	30
	-2V	-2V	+2V	+2V	m
)	4.2s	3.6s	4.9s	7.7s	150mm
	4.5s	4.0s	6.0s	10.0s	15
	-2V	-1V	+1V	+1V	_
	3.7s	3.1s	4.6s	7.5s	0mm
	4.0s	3.5s	5.7s	9.7s	0
	<del>-</del> 2V	-1V	+1V	+1V	mr
	3.7s	3.1s	4.6s	7.5s	150mm
jle	4.0s	3.5s	5.7s	9.7s	15
	-	-	+1V	+1V	ш
	-	-	8.7s	10.7s	300mm
	-	-	10.4s	15.2s	30

Measurement conditions: Temperature: 25.0°C, Humidity: 50.0%, Measured with TREK158 (20pF 150x150mm)

# makes very slim and compact model available.

GND =

A separate grounding terminal is available Convenient when grounding through AC adapter is not easy.