



Bar type electrostatic eliminator

Product executing standard: Q/320505KESD01



Suzhou Haixin Electromechanical Industrial Equipment Co., Ltd

Tel: 0512-68088345 Fax: 0512-65583326

Website: www.ksd.net E-mail: ksd@ksd.net

Address: No. 625, Binhe Road, High-tech Zone, Suzhou City

Service hotline: 400-888-9280

KE Series

High frequency AC Ion Fan Operating Instruction

Please read carefully before using it!

Read Carefully before Using it

- Thank your very much to buy the KF series ion fan of the company.
- Please read the operation method carefully before operating it.
- Please put the product specification in a place where it can be seen at any time.
- Please use it according to the method recorded in the specification and operating manual; otherwise, the company assumes no responsibility.

Please observe the following precautions for security

1. The stick electrostatic eliminator must be connected with air at first and then connected to power supply. If connecting to power supply before connecting to air, the internal ozone concentration may increase due to discharge, causing bad influence to equipment and environment.
2. Please don't use it on vibrating or striking parts.

3. Please use clean air containing no oil or water when using fluid.
4. When the fluid or environmental media applied containing following materials, please don't use the product: organic solvent, organic phosphate engine oil, sulphurous acid gas, chlorine and acids.
5. Please don't use the spray-head not produced by the company. In addition, please don't transform the spray-head; otherwise, it may cause product fault, function stop or damage.
6. The service life of the spray point differs due to application environment and conditions. If the application environment is bad (for example, environment with too high humidity) or the spray point hasn't been cleaned for a long time; its performance may be declined. Therefore, must carry out regularly maintenance.
7. Before piping work, please be sure to clean the piping internal (blow in compressed air). Once mixed with cuttings, sealing tape, rust, etc. sundries, it may cause mesh opening blocking or operation abnormality.
8. The product internal is equipped with precious electronic

components. When using the product, please don't knock, fall down or strike the products or imposed too much impact force to the products; otherwise, even the product appearance is not damaged, its internal may be damaged or its operation is abnormal.

■ Brief Introduction of the Product

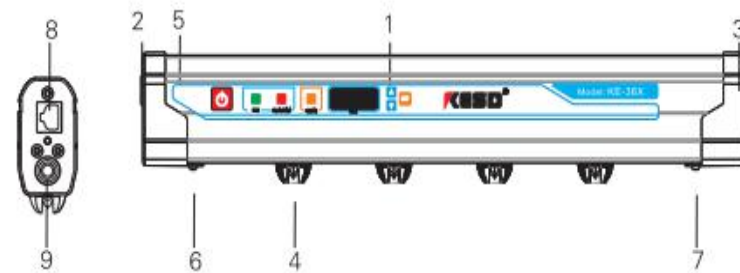
1. The product is fixed type destaticizing and dedusting dedicated device with light weight and small size. It has no electromagnetic interference, is safe to use and is equipped with high voltage normal and high voltage abnormal operation indication function.

2. If the stick electrostatic eliminator is connected to the power supply under the state of not connecting to air, its internal ozone concentration may increase due to electro-discharge, causing bad influence to the equipment and environment.

3. The product applies high frequency AC method, using compressed air to spray positive ion and negative ion from the spray-head. With excellent iron balance, it can carry out large area destaticizing from needle tip to large area.

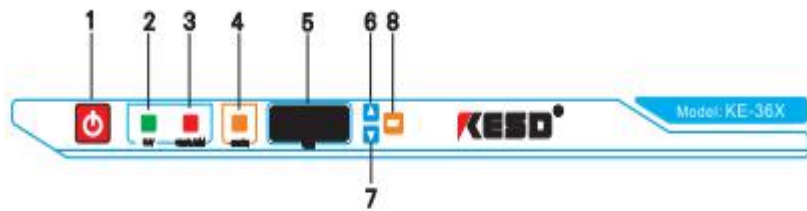
4. Unique spray-head size, greatly reducing air consumption; besides, the destaticizing field is even wider with application of various tooling parts.

■ Product structure diagram



1. Main shell body 2. Shell left side plate 3. Shell right side plate
4. Spray-head (spray point) 5. Control panel 6. Left side auxiliary air hole
7. Right side auxiliary air hole 8. Power port (DC 24V) 9. Inlet hole end cap

■ Functional Assignment



1. Main power switch
2. H.V- high voltage normal operation indicator light
3. H.V ALARM-high voltage abnormal operation indicator light;
4. CLEAN: the yellow LED light is on when exceeding the set accumulated operation time;
5. LED digital display tube (mainly display the set time of maintaining spray point and cleaning time)
6. Adjust cleaning time (time increase)
7. Adjust cleaning time (time decrease)
8. Set cleaning time (1-999H adjustable)

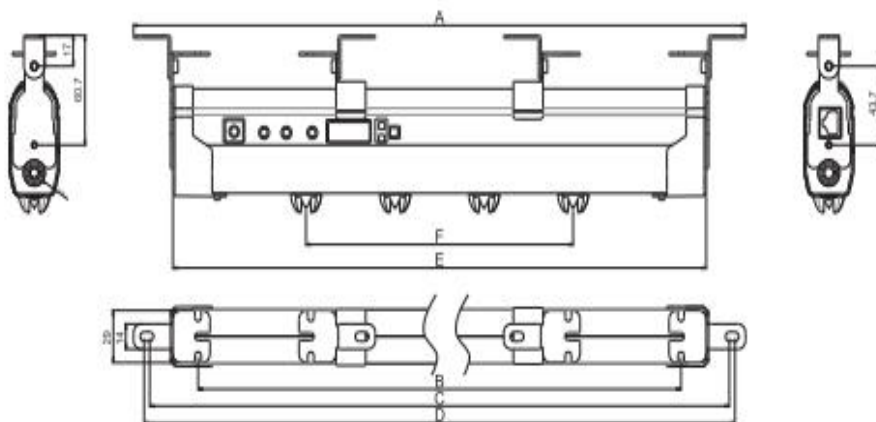
■ Product Features

1. The product applies high frequency AC method; the iron concentration is strong; destaticizing performance is stable for a long

time. You just need to clean the spray point regularly.

2. Apply unique spray-head form, which can greatly reduce air consumption;
3. The spray-head can be assembled and unassembled freely, convenient for maintenance;
4. Automatic iron balance system; the iron balance can reach: within $0 \pm 15V$;
5. Equipped with high voltage normal operation indicator and abnormal alarm indicator light;
6. Can set cleaning and maintenance time freely with LED digital display tube according to the workshop environment;
7. The product security coefficient is high.

■ Product Overall Dimension Drawing



Model	Overall length A	Installation interval B	Installation interval C	Installation interval D	Destaticizing E	Electrode spacing F
KE-36X	413	326	391.2	398.8	360	180
KE-60X	653	566	631.2	638.8	600	420
KE-84X	893	806	871.2	878.8	840	660
KE-108X	1133	1046	1111.2	1118.8	1080	900
KE-132X	1373	1286	1351.2	1358.8	1320	1140
KE-156X	1613	1526	1591.2	1598.8	1560	1380
KE-180X	1853	1766	1831.2	1838.8	1800	1620
KE-204X	2093	2006	2071.2	2078.8	2040	1860
KE-228X	2333	2246	2311.2	2318.8	2280	2100
KE-252X	2573	2486	2551.2	2558.8	2520	2340

KE-276X	2813	2726	2791.2	2798.8	2760	2580
KE-300X	3053	2966	3031.2	3038.8	3000	2820

■ Product Model Comparison

Model \ Item	Spray point spray-head no.	Product overall dimension/mm	Weight/Kg
KE-36X	4	360X68.5X33.4	0.39
KE-60X	8	600X68.5X33.4	0.64
KE-84X	12	840X68.5X33.4	0.89
KE-108X	16	1080X68.5X33.4	1.14
KE-132X	20	1320X68.5X33.4	1.39
KE-156X	24	1560X68.5X33.4	1.64
KE-180X	28	1800X68.5X33.4	1.89
KE-204X	32	2040X68.5X33.4	2.14
KE-228X	36	2280X68.5X33.4	2.39
KE-252X	40	2520X68.5X33.4	2.64
KE-276X	44	2760X68.5X33.4	2.89
KE-300X	50	3000X68.5X33.4	3.14

Remark: the weight is for single ion bar, excluding the support.

■ Spray point cleaning timer function setting

1. According to different application environment, the iron bar removed. Then the ion bar needs to be maintained manually. cleaning and maintenance time can be set freely;



2. Set Method

(1) Press down SET key and hold for 3 seconds, then the nixie tube units digit glitters; then adjust the time (1-9) with up and down adjust buttons;

(2) After completing units digit setting, press down SET key, then the nixie tube tens digit glitters; set time through up and down adjust buttons (1-9);

(3) Hundreds' digit adjustment is same as the tens digit;

3. Spray point cleaning prompt description:

(1) When setting the cleaning time as 360H, after setting the cleaning time, the buzzer sends out “D” , “D” and “D” three sounds.

(2) Meanwhile, the “Clean” indicator light is on and the nixie tube glitters. Press down the SET key and hold for 3 seconds, the prompt is

■ Specification

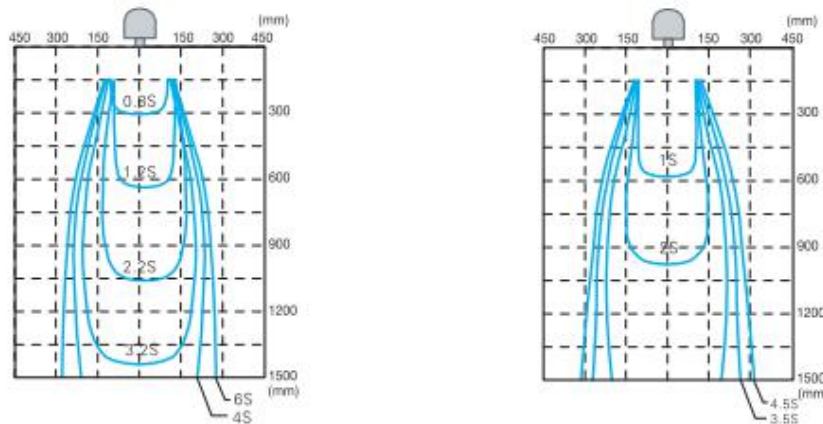
Technical parameters		
Input voltage	DC24V±5%	
Iron generating way	Corona discharge way	
Display LED	H.V(green)	High voltage normal operation indicator light is on
	ALARM (red)	The indicator is on when discharge is abnormal and electric circuit is abnormal;
	CLEANING (yellow)	The indicator is on and the buzzer prompts when reaching the set cleaning time.
Voltage regulation mode/ applied voltage	High frequency Ac way/t2400V	
Ion balance	Within ±15V (measuring distance 300mm , supply gas pressure 0.3MPa)	
Destaticizing time	1.0S(measuring distance 300mm, supply gas pressure 0.3MPa)	
Cleaning timer set time	Can be set within 0-999 hours	
Ozone generation amount (ppm)	Within 0.002pp m (measuring distance 50mm, supply gas pressure 0.2MPa)	
Applicable fluid	Air (cleaning air of which the water and oil has been removed)	
Air pressure application range	0.01-0.5MPa	

(MPa)	
Use ambient temperature	Indoor CM0T
Use ambient humidity	15~75%Rh(no condensation)

■ Destaticizing Range and Destaticizing Time

The following is the necessary destaticizing time of the object and the interval from the object to the ion bar.

■ Destaticizing Range and Time (0.2Mpa) Destaticizing Range and Time (0.5Mpa)



Measuring conditions:

1. Destaticizing time from $\pm 1000V$ to $100V$;

2. Apply plate-type static electricity tester with specification of $150mm \times 150mm$ (20pF);
3. Use KE-36X no decline airflow with air pressure of 0.2Mpa and 0.5Mpa respectively.

■ Power Supply Wiring Indication

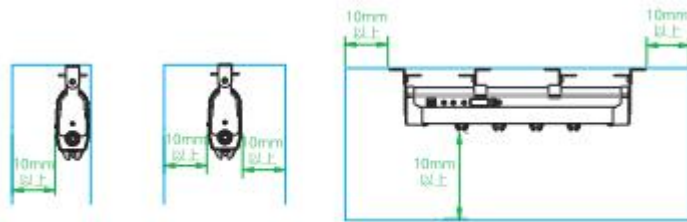
Cable color	Wiring instruction
Brown Browntong	DC power supply rated DC24V \pm 10%)
Blue Blue-white	Power supply GND
Orange-white	High voltage abnormal alarm indicator light output signal line
Green	High voltage normal and abnormal output signal line
Green-white	High voltage normal alarm indicator lightoutput signal line
Orange	Not used
Shielded wire / ground lead	Shielded wire /ground lead

Remark: Under no load state, please don't impose voltage to output signal line and output signal; otherwise, it may cause internal wire damage, resulting in accident or fault occurrence.

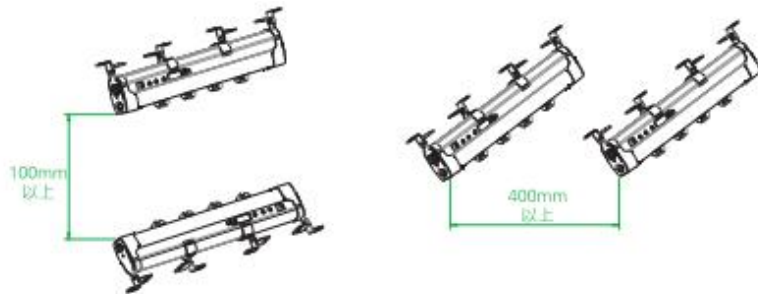
■ Installation Distance Setting

■ About Installation Distance

1. When applying it, under the state of guaranteeing the best operation state of electrostatic eliminator, please be sure to maintain the following distance:



2. When using 2 KE series iron bars at the same time, please refer to the following dimension for installation:



■ **Airflow Control**

Supply clean and dry compressed air through the air supply ports on both sides of the iron bar product.

Prevent the electrode from attacking dust (recommended air pressure: 0.2Mpa) through the air purge way and it also play the function of improving destaticizing speed and expanding elimination range at the same time.

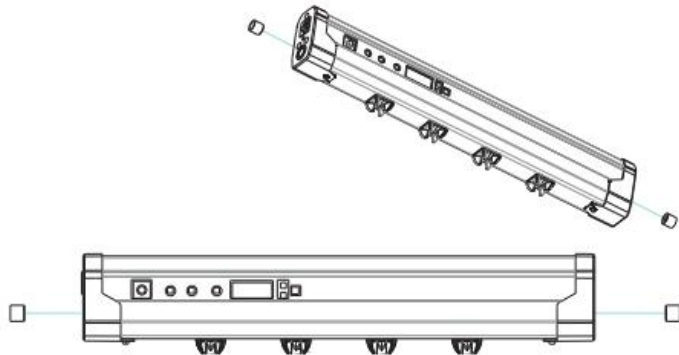
※Air pressure displays the pressure value at the bottom of joint.

Attention	<ul style="list-style-type: none"> ■ Air pressure must be less than 0.5 Mpa to avoid accident or fault occurrence. ■ Joint tightening torque must be less than 3N.m (30 kgf.cm) to avoid accident or fault occurrence. ■ The air must be clean and dry compressed air to avoid accident or fault occurrence. 															
	<ul style="list-style-type: none"> ■ Please be sure to supply clean and dry compressed air and then open the power supply. ■ Please use the clean air containing no dust or oil mist as the supply air (the compressor air should meet ISO grade 1.1.1~1.3.1); in addition, it shouldn't contain organic matter. <p>The compressed air grade provided by ISO8573-1</p> <table border="1"> <thead> <tr> <th>Grade</th> <th>Largest particle</th> <th>dew point pressure under moisture pressure 0.69 MPa</th> <th>Remaining oil</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0.1</td> <td>-70 (-83)</td> <td>0.01</td> </tr> <tr> <td>2</td> <td>1</td> <td>-40 (-58)</td> <td>0.1</td> </tr> <tr> <td>3</td> <td>5</td> <td>-20 (-42)</td> <td>1</td> </tr> </tbody> </table>	Grade	Largest particle	dew point pressure under moisture pressure 0.69 MPa	Remaining oil	1	0.1	-70 (-83)	0.01	2	1	-40 (-58)	0.1	3	5	-20 (-42)
Grade	Largest particle	dew point pressure under moisture pressure 0.69 MPa	Remaining oil													
1	0.1	-70 (-83)	0.01													
2	1	-40 (-58)	0.1													
3	5	-20 (-42)	1													

■The product must be supplied with air from both sides (2 places)

■ Air Supply Method

As shown in following drawing, after dismantling the hexagonal screws on the air supply port on both sides of iron bar (use wrench 5), install joint on the supply port (R1/8 quick coupling) to supply air.



■ Spray Point Maintenance-Replacement

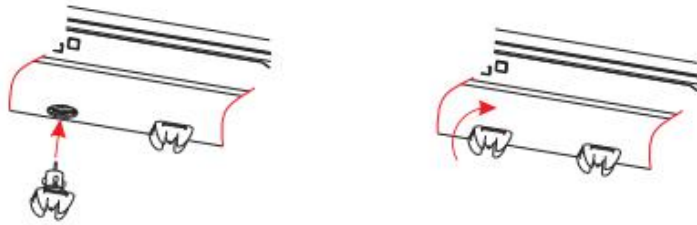
After cleaning, if the destaticizing ability can't be restored or the ion balance alarm indicator light still flickers frequently, it can be considered that the spray point has reached its service life. Please replace the spray point timely. According to the difference of

application environment and running time, the replacement cycle should also be distinguished. Generally speaking, even conduct maintenance, it still frequently issues iron balance alarm, so the spray point should be replaced.

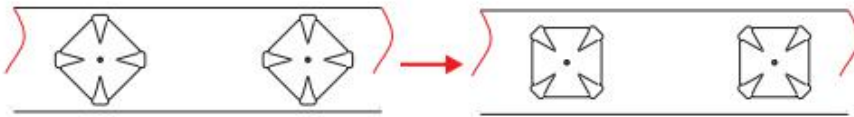
- When disassembling the spray-head, hold the spray point with hand; press down along the main engine direction and take out anti-clockwise at the same time.



- When installing, insert the spray point aligning at the groove; press down along the main engine direction and rotate and install it anti-clockwise at the same time.



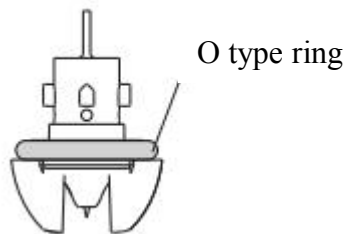
- When installing the spray point, the prominence position of all spray points should face down as shown in following drawing.



Spray point: unfixed

Spray point: finish fixation

- When installing the spray point, please confirm the O type ring has been placed on fixed position.



■ After-sales Service

1. Warranty Period

The warranty period of the products sold by the company is one year. Within one year since the product is sold, any fault caused due to its component materials and process problems should be repaired by the company freely (except quick-wear parts).

2. Service after Warranty Period

All products sold by the company will still be repaired free of labor cost (only charging part cost) after warranty period to protect customer's interest.

The company maintains the right of modifying the above product property parameters and technology at any time without further notification.

■ Package Content Confirmation

The package contains the following components. Before using them, please confirm whether all goods are complete.

1. Ion bar.....1
2. Power line.....1
3. Installing support.....2
4. Quick coupling.....2
4. Specification.....1
5. Warranty card.....1
6. Inspection report.....1 copy
7. Certificate of conformity.....1 copy