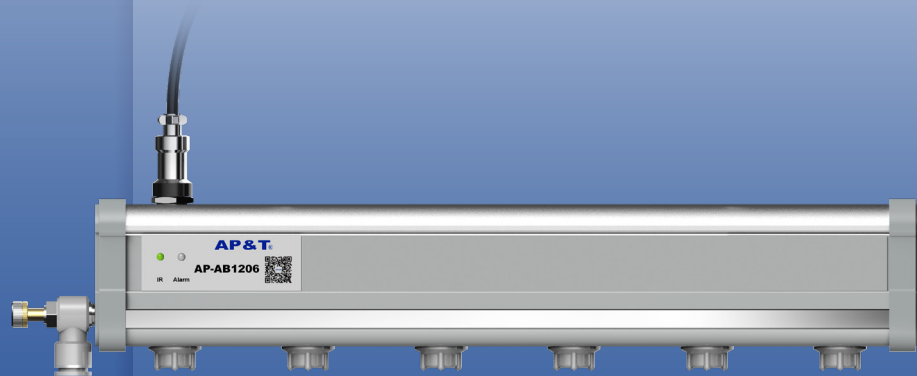


**AP&T**<sup>®</sup>

Shanghai Anping Static Technology Co.,Ltd

High Efficient Electroshock-proof  
Intelligent Ion Bar  
AP-AB1206



—AP&T—

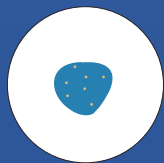


Widely used in printing, UV flatbed industry

Effectively solve the problem caused by static electricity



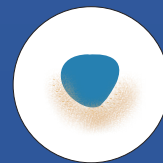
Static removal



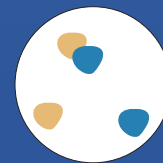
Prevent adhesion of



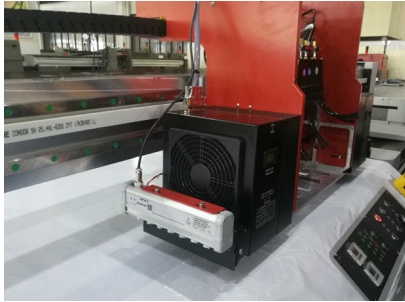
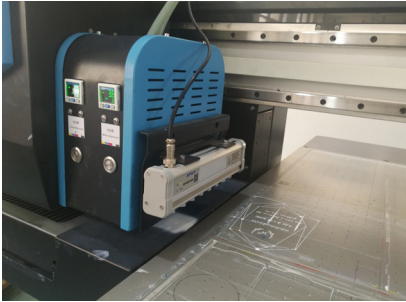
Prevent sticking



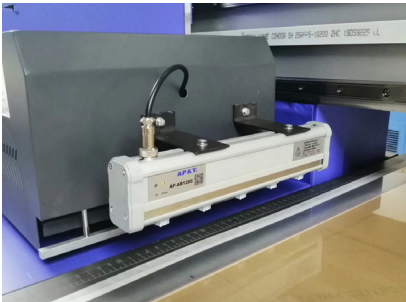
Control ink splashing



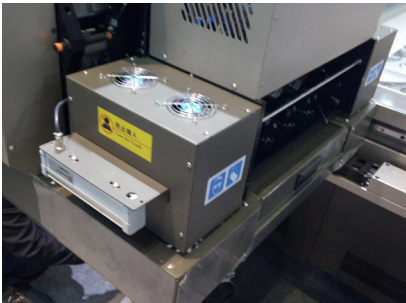
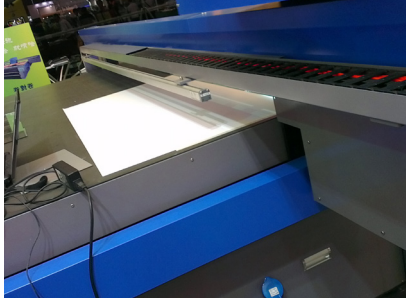
Prevent uneven scattering



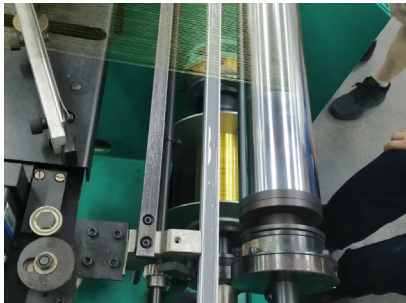
High efficient



Safe



Static removal



# Intelligent Control

Cleaning time /ion balance/  
ion output frequency adjustable



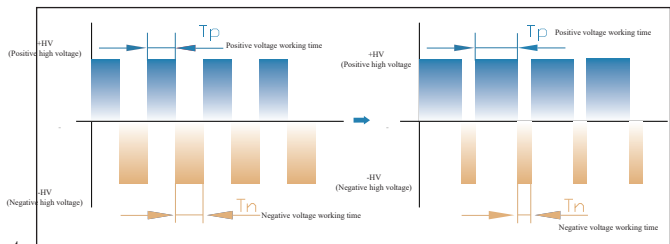
## Remote control button



- "R/S": Run and pause.
- "IB+": Increase the duty cycle to eliminate excess negative charges on the surface of the object;
- "IB-": Reduce the duty cycle to eliminate excess positive charge on the surface of the object.
- "P": Only work with positive high pressure;
- "N": Only work with negative high voltage.
- "Bar" + "1": Set the working frequency of the ion bar to 1 Hz;
- "Bar" + "2": Set the working frequency of the ion bar to 3 Hz;
- "Bar" + "3": Set the working frequency of the ion bar to 5 Hz;
- "Bar" + "4": Set the working frequency of the ion bar to 10 Hz;
- "Bar" + "5": Set the working frequency of the ion bar to 20 Hz;
- "Bar" + "6": Set the working frequency of the ion bar to 30 Hz;
- "Bar" + "7": Set the working frequency of the ion bar to 50 Hz.

## Ion balance adjustment

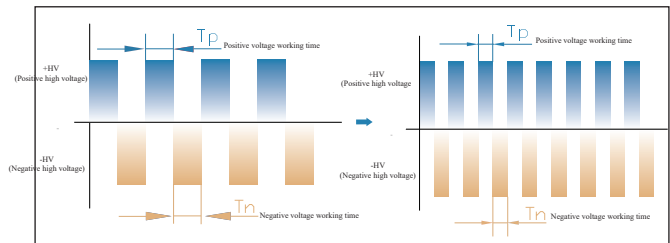
Press "IB-" when positive voltage on plate tester or target object is large or "IB+" when negative voltage on plate tester or target object is large until the ion balance reaches to ideal status. Static removing speed can be raised by adjusting the output ratio of positive and negative ion.



## Output frequency of positive & negative ions adjustment

Adjust the output frequency of positive and negative ions to apply to different elimination distances.

No matter the distance is long or short, it can exert its static elimination ability. The factory setting is 30Hz. A handheld terminal is required or return to manufacturer if output frequency need to be adjusted.



Working frequency (Hz)	Discharge distance (mm)
50	100
30	100
20	150
10	150
5	200
3	200
1	250



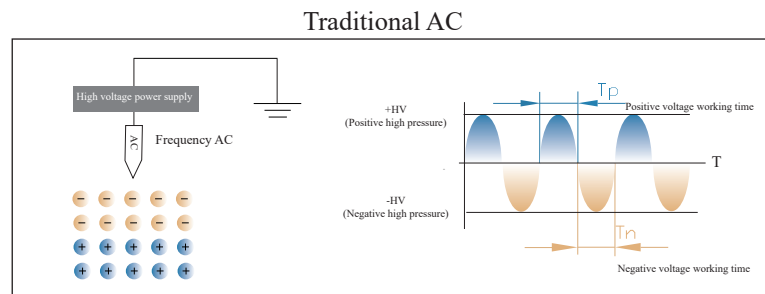
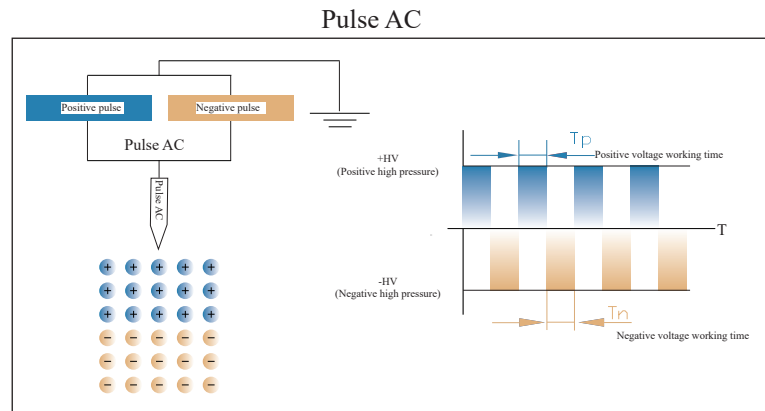
# Pulse AC

The effect of static eliminating is better compare to power frequency AC ion bar

## Comparison with traditional AC

The pulsed AC method alternately applies "+" and "-" high voltage to one electrode needle to generate two polar ions.

Compared with the traditional AC method, the amount of generated ions is increased and no uneven static elimination is found. Static elimination ability fits for both short or long distance.



## 3 situations of static on the surface of the object



Decrease  $T_p$  so that the positive voltage becomes smaller and the acting time becomes shorter. Less positive ions and more negative ions output to neutralize the excess positive charge on the surface of the object.



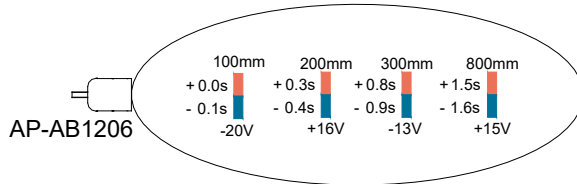
Increase  $T_p$  so that the positive voltage acting capacity becomes greater and the acting time becomes longer. More positive ions and less negative ions output to neutralize and excess negative charge on the surface of the object.



Adjust the duty ratio  $[T_p/(T_p+T_n)]$  to an appropriate ratio and send out the same amount of positive and negative ions to neutralize the static charge on the surface of the object.

# Efficiently static removal

Stay away from static electricity & for clean production environment



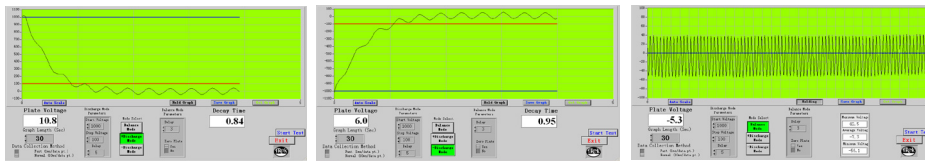
Test standard: ANSI/ESD.STM3.1, SJ/T 11446—2013

Test instrument: Trek157 static tester

Test voltage: ±1000V → ±100V attenuation

Test environment: humidity 50±5%; temperature 23±3°C

The test data diagram is as follows (test distance: 300mm, ion rod length: 880mm, air pressure: 0.3Mpa, working frequency: 30Hz):



The measured data under other test conditions are as follows

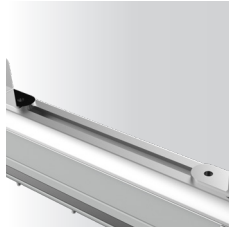
The length of the measured ion bar: 385mm; working frequency: 30Hz;

Test distance (mm)	Air flow pressure (MPa)Remarks: 1*	Duty factor (%)	Discharge speed			
			Positive discharge time (S)	Negative discharge time (S)	Ion Balance voltage (V)	
300	0.2	-150	49	2.7	2.9	-0.7
		0	52	0.5	0.5	4.1
		150	49	2.9	3	-0.7
	0.4	-150	49	1.3	1.5	-5
		0	50	0.2	0.2	12.9
		150	49	1.6	1.9	-2.4
		-150	49	1.1	1.2	-3.8
		0	49	0.1	0.2	-11.6
		150	49	1.3	1.2	13.1
500	0.2	-150	50	2.6	3.1	-5.6
		0	51	1.1	1.3	-2.6
		150	51	2.9	3.1	2.2
	0.4	-150	49	1.5	1.8	-5.9
		0	49	0.6	0.8	-15
		150	50	1.8	1.6	11.7
		-150	49	0.9	1.2	-3.9
		0	49	0.4	0.6	-4.6
		150	49	1.2	1.4	-2.6
600	0.2	-150	50	1.8	2.4	-3.4
		0	51	1.3	1.7	1.2
		150	50	2.1	2.6	-2.4
	0.4	-150	50	1.1	1.2	9.1
		0	49	0.7	1	-4.6
		150	49	1.1	1.4	-3.7
		-150	49	0.7	0.9	-3.4
		0	49	0.5	0.7	-6.8
		150	49	0.9	1.1	-1.3

Remarks: 1\*—Real-time pressure value during gas flow.  
 The balance voltage performance of the ion bar varies with the length of the bar, air flow pressure, working frequency, and installation distance; the duty cycle should be adjusted according to the specific use environmental conditions to make the balance performance of the ion bar reach the best state.

# Features

Safe / Easy to use / Durable



No.1

## Easy installation

M5 sheet slider nut installation accessories provided. Put the slider nut into the slot of the ion bar. Slide left and right to adjust position and can adapt to various installation environments.

No.2

## Electroshock-proof

Protection against electroshock.



No.3

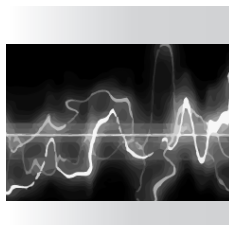
## DC24V high flexible towline power cord

The standard length of the power cord is 1500mm and the low-voltage wiring of 24V can eliminate the aging phenomenon of the cable caused by the discharge and the impact on the peripheral equipment, which can build a highly reliable system.

No.4

## Working status visualization

Green light----working normally  
Red light-----abnormal high voltage

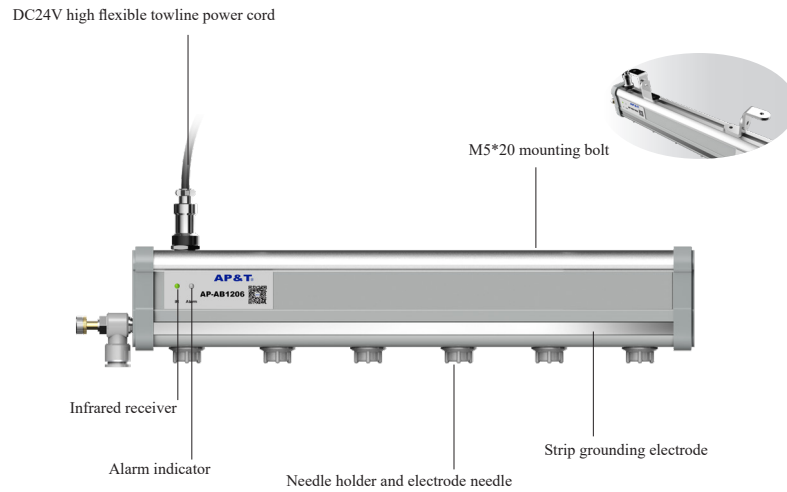


No.5

## CE certification

It can effectively prevent the external electromagnetic interference from affecting the normal operation of the ion bar. This is a static electricity eliminator with high safety and high reliability.

# Details



# Installation




## Installation steps

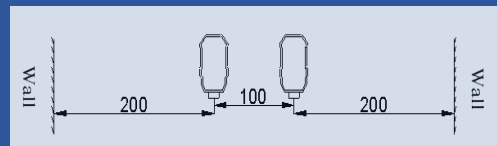
1. Choose the best position for eliminating electricity and install the bar firmly.
2. Insert one end of the power connection wire into the power adapter socket and the other end into the power socket on the bar body.  
The wiring and panel descriptions are as shown above.
3. Connect the air source connector on the bar body to the air source generator and turn on the air source switch.
4. The network port indicator light and the ion bar panel indicator light is on green to show the ion bar working. Adjust the appropriate air source pressure and voltage parameters, output positive and negative ions to neutralize the surface static electricity.

## Installation tips

1. When using the ion bar, it should be placed in a static-free working area and the installation angle should be perpendicular to the surface of the charged body.
2. Ion bar should be at least 30mm away from the metal conductor and metal grounding body around the electrode. The bar body must be reliably connected to the grounding wire.
3. Ion bar grounding electrode is not allowed to be covered by other objects.
4. It is better to install two ion bars side by side with an interval of more than 100mm and more than 200mm away from obstacles such as walls.

DC24V high flexible towline power cord wiring diagram

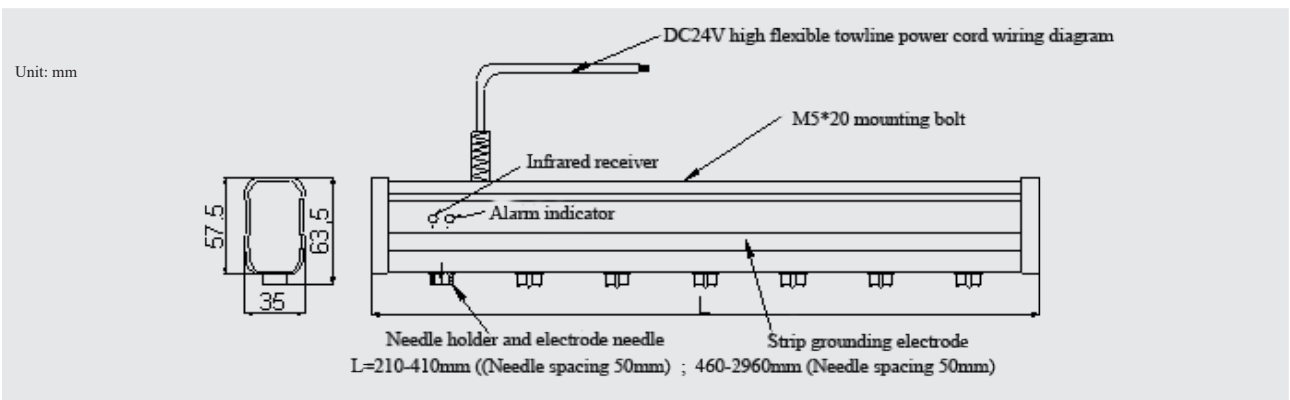
Power cord color	Connecting info
 24V	Orange + 24V
 0V	White 0V
 EGND	Green PE





# Specification

Model	AP-AB1206
Input voltage	DC 24V
Input Current	< 600mA
Power	10W
Working voltage	DC±5KV
Ion emission	Pulse AC
Emitter electrode	SUS
Discharge structure	Resistance coupling
Output frequency	1,3,5,10,20,30,50Hz; (EX-Work setting: 30Hz)
Duty factor	10%—90%
Discharge range	L*W*H: (210-410mm; 460-2960mm Needle spacing 50mm)*300*1000mm
Installation distance	100→1000mm
Ion balance	≤ ±30V  (AVE)
Discharge speed	≤2S
Status indicator	High pressure alarm indicator (green light-----normal operation ; red light-----abnormal high voltage)
Air pressure	≤0.6MPa
Compressed air connector	Φ8-G1/8 White
Working temperature	0°C-50°C
Working humidity	< 70%
Dimensions	L*W*H: (210-410mm; 460-2960mm)*35*63.5mm
Bar material	Flame retardant PVC、AL、 SUS
Packaging accessories	M5*20 hex mounting bolt
Warranty	1 year
Certification	CE



# AP&T<sup>®</sup>

## Speciality Creates Value

Shanghai Anping Static Technology Co.,Ltd

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