



# Eltech Engineers Pvt Ltd

An ISO 9001 - 2015 Company

## Static Eliminators & Ionizers



[www.eltech.in](http://www.eltech.in)



## The Power of Static Electricity, **Now in your hands..**

### ABOUT COMPANY

**ELTECH ENGINEERS PVT LTD**, established in 1992 is an ISO 9001:2015 certified Indian Company engaged in the manufacturing activity of Corona treater, Plasma Treatment Systems, Static Charge Eliminator, Static Chargers, Static Meters, Ionizing Air gun, Blowers, Induction Cap Sealers etc. Our clients always look upto us for their different requirements because of our high quality standards, superior performance, zero defect products, timely deliveries and very reasonable price.

Eltech is the leading solution provider for any type of static charge problems in India. We have wide range of Ionizing products for different applications faced in the printing, packaging, textile & pharmaceuticals.

## Leader in Static Control **Since 1992 !!**

## Why Us?

We are a customer-focussed company, which works with customer perspectives in mind. Some of our specialities, which make us a preferred business partner for our clients are:

- Highest standards of quality ; CE Certified
- Innovative Approach
- Timely Deliveries
- Competitive Pricing
- Unending pursuit of product, process & performance optimization

## Work force & Infrastructure

We are based in Mumbai (Maharashtra), India, with world class manufacturing facilities. The unit is equipped with all the latest machines and technology to produce products of international standard. Utilizing our sophisticated infrastructural facilities, we are capable to offer innovative and high quality solutions and products to give our clients a competitive edge in the market place. Our workforce is a team of highly skilled and experienced professionals, who are committed to exceed customer expectations at every point of service. The team has also developed expertise in producing products, which can match individual customer needs and requirements.

## Timely Delivery

We, at Eltech Engineers Pvt Ltd , are committed to deliver our orders within the stipulated time frame and as demanded by our customers. To achieve this goal, we have developed a flexible production system, a reliable supply chain and efficient facilities. We take pride in our capability to meet immediate and bulk requirements of our clients. Our clients can place their orders in bulk as well as economic order quantities.

## Applications

- |             |                   |               |
|-------------|-------------------|---------------|
| • Packaging | • Food            | • Electronics |
| • Plastics  | • Pharmacueticals | • Textiles    |
| • Printing  | • Medicals        | • Optics      |
| • Paper     | • Automotive      |               |

## ALL ABOUT STATIC ELECTRICITY

Static eliminators are used to eliminate static and dust. Static electricity is problem, which companies face globally. It primarily affects industries, which handle non conductive materials like plastics, paper, board, laminates and textiles. The electrostatics attraction repulsion cause materials to stick to machinery, or to each other, leading to jams, slow machine speed and poor quality and productivity. Friction, pressure and separation are the major causes of static electricity. When humidity is lower, higher static charges are generated. It becomes more noticeable in the months of winter, in dry laminates, and in air conditioned environments. Use of our superior quality neutralize static eliminator ensures solution of all these problems and results in trouble free operation, increased profits and maximum customer satisfaction

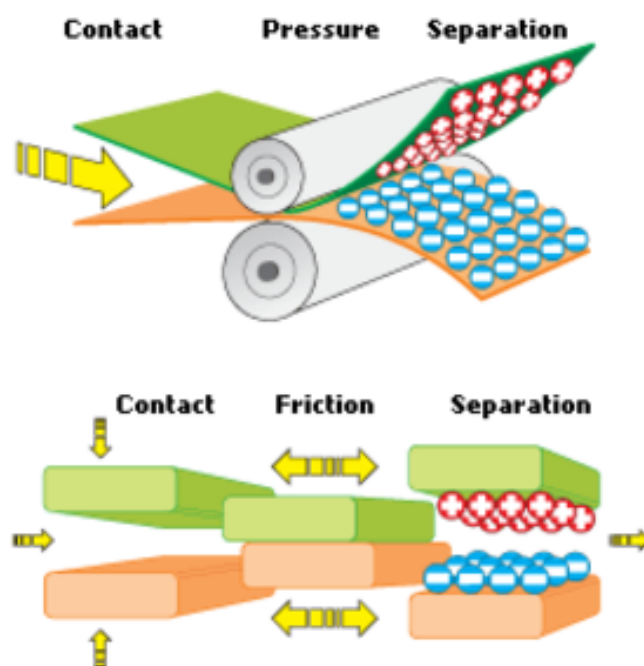
### What causes Static Electricity ?

The surface layer of an electrically insulating material like plastic, paper or synthetic textile is usually not electrically charged. However, the material can become electrically charged under the following circumstances:

**Friction** when the surface of a material is rubbed against a material of the same or different kind.

**Pressure** when the material is run through two rollers.

**Separation** unwrapping of plastic foil from a roll.



These processes are examples of handling that can result in an imbalance in the material's electric charge. One surface becomes positively charged, the other one negatively. Because the material is electrically insulating, the charge cannot be conducted away through the material itself and the charge is now said to be static. The characteristics of electric charges to attract charges with opposite polarity or to repel those with identical polarity can cause immense problems during production.

## Effects on Material of Static Electricity ?

Some materials cause or create more static electricity than others. Since static electricity is the collection of electrically charged particles on the surface of a material, various materials have a tendency of either giving up electrons and becoming positive (+) in charge or attracting electrons and becoming negative (-) in charge.

The Triboelectric Series is a list of materials, showing which have a greater tendency to become positive (+) and which have a greater tendency to become negative (-). The list is a handy tool to determine which combinations of materials create the most static electricity.

## Triboelectric Series

It can be seen that some objects easily acquire a positive charge, while others easily acquire a negative charge, depending upon the material of the object. Also, if objects consisting of materials located at greatly differing parts of the table shown at left touch each other, the amount of static electricity will become large.

For example, if static electricity is generated by copper and rubber for the reason indicated in the figure below, the copper will acquire a positive charge, and the rubber will acquire a negative charge. The charging electric potential acquired by the human body and fluororesin is larger than that acquired by copper and rubber.





## Different types of problem caused by static

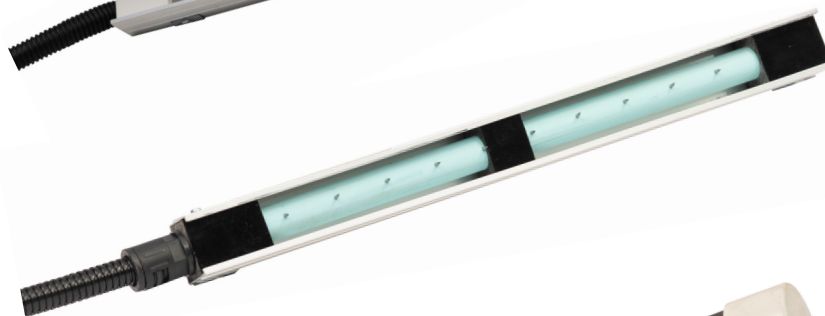
- Causes dust attraction, leads to improper stacking.
- Cause problems in printing.
- Sheet feeding problems.
- Materials tearing, jamming or curling.
- Hazardous sparks or shocks to person.
- Product sticking to itself, rollers or machine parts.
- Static cling causes handling problem.

### Range of Anti-static Bars

We have a range of high performance different static eliminator Bars/Electrodes.



Eltech 301 HV Bar



Eltech 305 Shockless HV Bar



Eltech 302 HV Bar  
(For Textile Industry )



Eltech SSPL Bar

**NOTE :** Anti-Static bars can be customised as per your size requirement.

## Circular Static Electrode

The Eltech circular static eliminator electrode is highly suitable for installation on vertical form and fill machinery. The system provides 360 degree ionization and helps in eliminating the static on the entire surface of the material being fill. Controlling the static charge helps in eliminating the entrapment of filled material in the seal area of the bag and avoids unsightly "static cling" of the fill material to the inside of the bag.

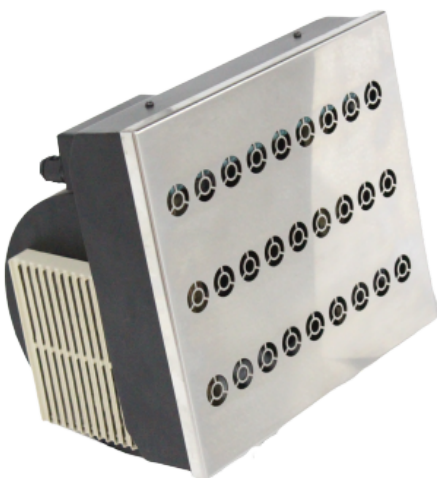
We manufacture circular version with internal diameters ranging from 40 mm to 250 mm. These are used in applications where 360o neutralization is required such as plastic pipe extrusions, vertical form fill packaging machines, textile slivers etc.



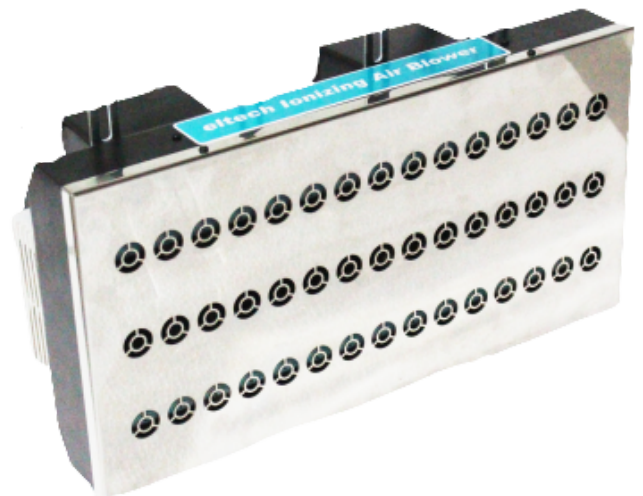
**Eltech 306**

## Ionizing Air Blower

Ionizing air blower or anti static blowers are the most versatile ionizer to control or remove static electricity. This static control blower offers the ability to cover a large area cost effectively. This static control equipment is an excellent choice to reduce static electricity and reduce operator static shocks and production applications needing large area coverage.

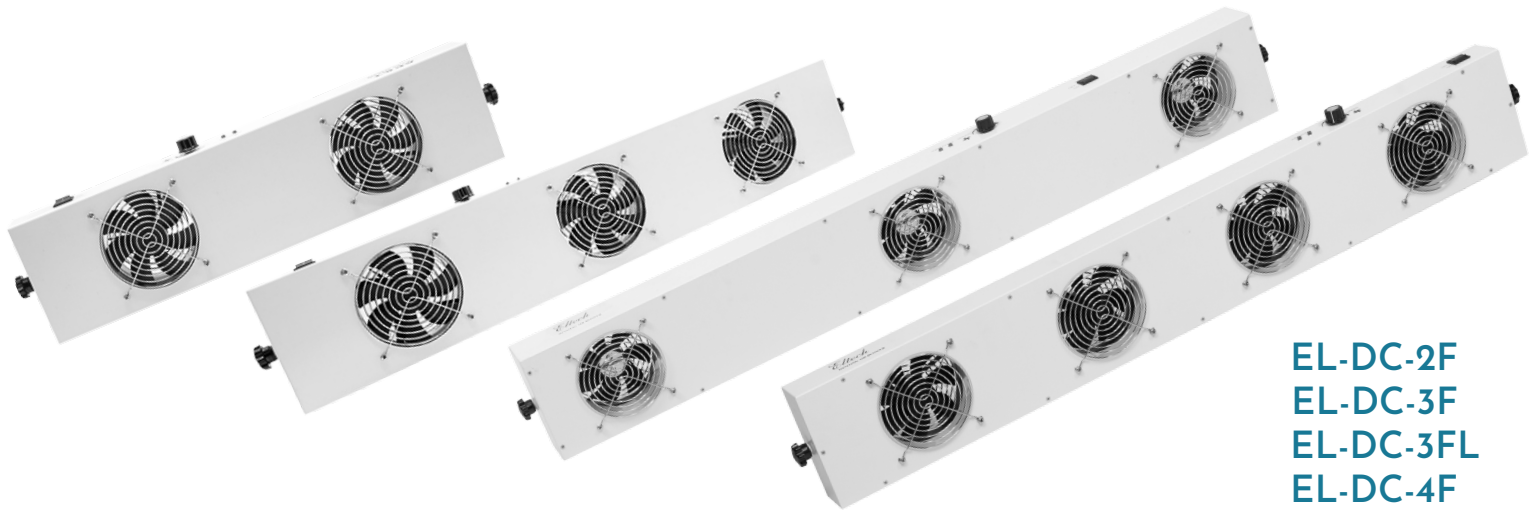


**Eltech 310-A**



**Eltech 310-B**

## Overhead Ionizing Air Blower



EL-DC-2F  
EL-DC-3F  
EL-DC-3FL  
EL-DC-4F

It is the ideal technique of removing static, contaminants and dust from three dimensional parts before assembling, packaging, painting or finishing. The overhead ionizing air blower neutralizes the static electricity and cleans at distances up to 1 foot.

Fan is used to transport ionized air to the object for long range static neutralization or dust removal. If the air is ionized, the static charge will be eliminated, which allows superior quality cleaning without re-attraction.

The use of overhead ionizing air blower ensures powerful, long range, wide area static neutralization. They are widely used to neutralize mouldings, winders, sheets and other large objects.

**NOTE :** Blowers can be customised as per your size.

## Bench Top Ionizer

This Bench Top instrument is designed to neutralize your ESD work-station or ESD protected area with a stream of ionized air. It does what Wrist straps and Conductive mats cannot do - i.e. remove static charges from nonconductive objects and surfaces.

The unique high efficiency ionization pulse circuitry provides fast discharge with minimum air flow.



EL-312

## Ionizing Air Gun

The ionizing air gun is rugged in design and an industrialized ionizing air gun. It is mainly used to eliminate static charges and blow off contaminants from the surface of laminated woods, plastics, rubbers and glass. At the same time the neutral surface doesn't re-attract airborne contaminants from the manufacturing process. It is the ideal technique of removing static, contaminants and dust from three dimensional parts assembling, packaging, painting or finishing. The ion air gun neutralizes the static electricity and cleans before at distances up to 2 feet. If the compressed air is ionized, the static charge will be eliminated, which allows superior quality cleaning without re-attraction.



### EL-IAG-315

(Powered using EL-331 Power supply)

## Ionizing Air Nozzle

The ionizing air nozzle is rugged in design and an industrialized ionizing air nozzle. We are manufacturer of air nozzle and we are providing ionizing nozzle with & without stand. Air nozzle is mainly used to eliminate static charges and blow off contaminants from the surface of laminated woods, plastics, rubbers and glass. At the same time the neutral surface doesn't re-attract airborne contaminants from the manufacturing process.



### EL-IAN-316

(Powered using EL-331 Power supply)

How it works ?

The air nozzle and an ionisation head engineered into the finger guard. When the trigger is pulled air travels at high speed from the nozzle, picking up the ionised air produced by the ionisation head. The ionised air is blown at high speed towards the object. The ionisation kills the static electricity, allowing the dust to be blown off. The object will be static-free and unable to re-attract dust.



Nozzle for inside bottle static elimination



## Fan Driven Static Eliminator



### Eltech - 309

It is the ideal technique of removing static, contaminants and dust from three dimensional parts before assembling, packaging, painting or finishing. The air driven static eliminator neutralizes the static electricity and cleans at distances up to 1 feet . Air is used to transport ionized air to the object for long range static neutralization or dust removal. If the air is ionized, the static charge will be eliminated, which allows superior quality cleaning without reattraction.

The use of fan driven static eliminators ensure powerful, long range, wide area static neutralization. They are widely used to neutralize moldings, winders, sheets and other large objects. It is powered by 331 static charge eliminator.

## Static Pinner Claw

The Eltech 310 Edge Pinning is a powerful pinning head intended for use on cast-film lines. Pinning the edges of the cast film to the chill roller prevents necking of the film. Resistively coupled titanium pins deliver spark free pinning.

A safe, controllable, reliable and cost-effective method of applying static charge for temporary adhesion in applications including interleaving steel sheets, pinning plastic sheets and webs, bag making, wrapping machines.

- Adjustable tips allow easy installation in a range of applications.
- Precise static generation exactly where it is needed.
- Robust construction ensures long life.



### ELTECH 311



### EL-EP-312

## Static Eliminator Power Supply



**Eltech - 331**  
**Power supply 5 KV**



**Eltech - 335**  
**Power supply 7 KV**

The instrument produces high voltage, low current in a controlled and safe manner. It's compact size and structure is suitable for most industrial environments. The defect free products and quality ensures efficient use and maximum customer satisfaction.

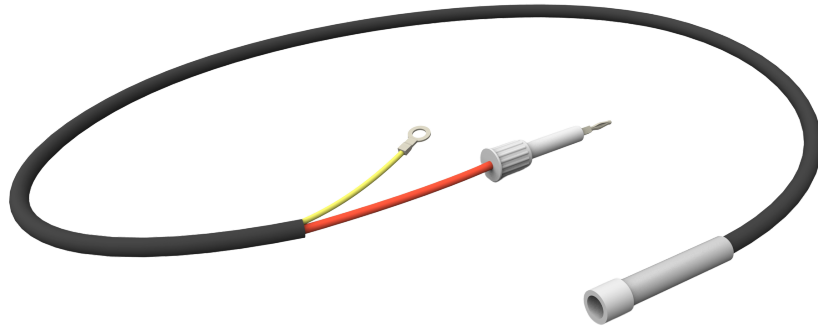
We have designed the Eltech 331 , 335 Static eliminator power supply and the different discharge bars for active discharging of disruptive static charges, which develop during the production processes. The discharge bars and the power supply are used primarily in cases where disruptive static charges on fast moving material webs impair production processes and required to be eliminated.

## Features & Benefits

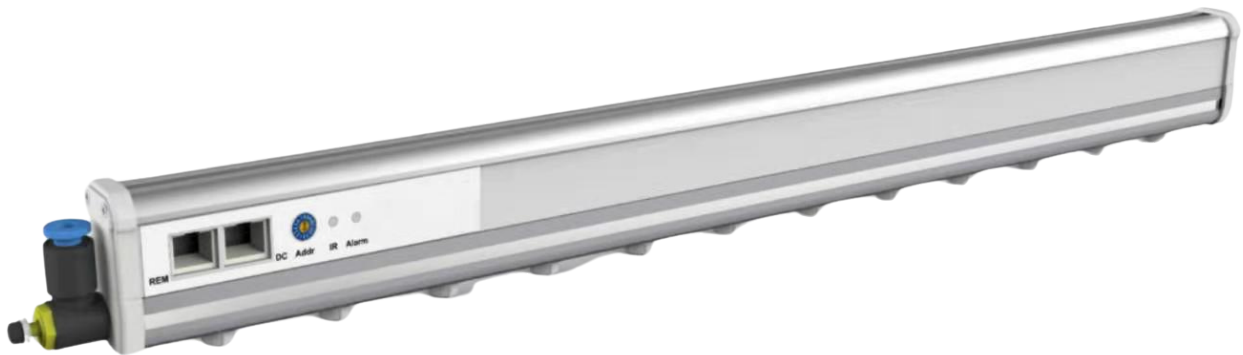
- Consistent, uniform winding gives more robust and stable performance
- More powerful static neutralization, lower electrical stress and increased reliability
- Short circuit current of less than 5 mA ensures high level of operator safety
- IEC fused mains connector
- Enables fast and easy connection to mains supply and reduced installation time
- Maximum load Equivalent to 10 metres of ionizing appliances and cable

## Ion Pen

Anti-shock ion pen adopts power frequency AC high voltage, acting on a dedicated emitter electrode, ionizing air molecules to generate positive and negative air ions, and transporting it to the surface of the electrostatic object to be neutralized, neutralizing positive and negative electrostatic charges, to achieve high efficiency , The purpose of reliable static elimination.



## Air Assist Ionizing Bar



Eltech's Air Assist ion bar adopts the power frequency DC high voltage, acts on the special emitter electrode through the impedance coupling device, ionizes the Compressed air molecules, generates positive and negative ions, and delivers to the surface of the static elimination object, neutralizing the positive and negative electrostatic charges, achieving high efficiency & till long distance upto 1ft. The purpose of reliable elimination of static electricity. Can be widely used in film, printing, plastic, tmouldings, textile and other industries.

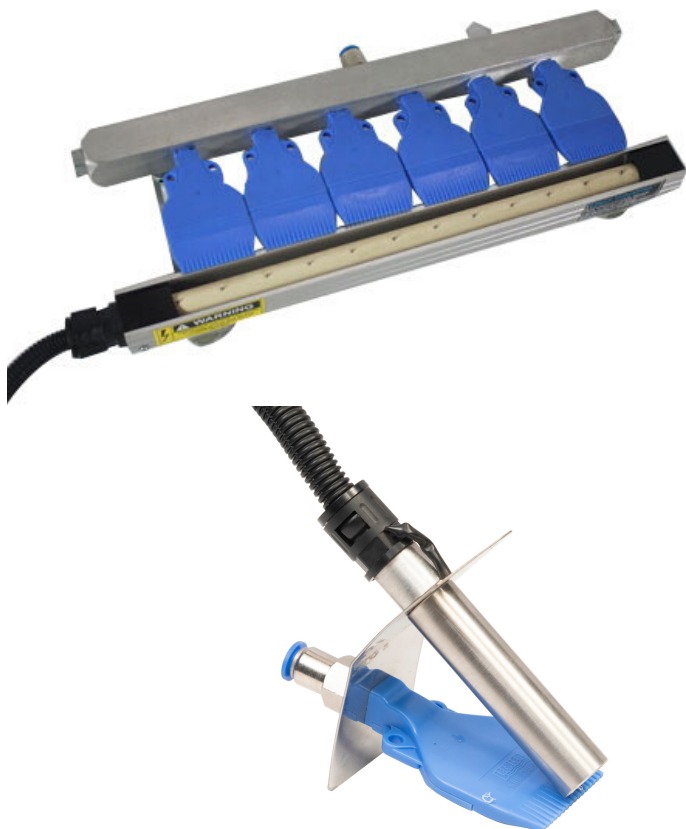
- Bar shaped and cross over static eliminator
- Manufactured by using the latest technology of static removing
- Fast speed of static removing, low ion balance and high safety
- Adjustable positive and negative ion frequency
- With alarm function of high voltage fault

## Static Charger (In-mould foil charger)

We offer superior quality static chargers that can be used to stick PP / BOPP / polystyrene foil material to the inner mould surface during injection moulding. This makes the foil constant in a position in the mould due to charging. These static chargers are manufactured in compliance with international quality & safety standards. Decorate your injection moulded product to look more charming with a multi color foil on plastic items like thermo ware products, casseroles, tiffin, water jug, tray, glass, coasters, mug, lunch box, compass box, water bag, bucket, tumbler, ice pail and many other household, advertising and gift items which can be injection moulded.



## Ionizing Air Knives/Jet



Ionised Air Knives/Jet produce fast-moving ionised air which can neutralise static electricity and remove contaminants. They are used to clean plastic parts - removing the dust and eliminating the static electricity to prevent re-attraction. Powerful ionisation kills the static charge holding the dust, allowing the fast beam of laminar air to remove it for a thorough cleaning.

The non-turbulent laminar airflow limits the recombination of ions in the air and so maximises the static neutralisation performance. Widely used in electronics, injection molding, printing, film and pharmaceutical machinery industries.



## Digital Static Charge Meter



EL-03



EL-04

The Static Charge Meter is non-contact, hand held, light weight static monitoring and locating instrument. It utilises a precision LED display to indicate the magnitude and polarity of the electrostatic charge.

The Static Charge Meter has good directional sensitivity and is ideal for measuring electric charges encountered in critical electronic assembly and storage areas as well as Antistatic Work Stations. It can also be used for Plastics, Paper, Textiles, Food, Explosives and Pharmaceutical Industries.

## Human Body Voltage Checker



EL-05



This instrument is designed to measure the Static Voltages carried on a human body. It is a good auditing tool to verify whether Personnel entering an ESD safe area are carrying any hazardous charges on themselves.

## Surface Resistivity Meter

This is a wide-range, battery operated, portable instrument for measuring Surface Resistivity of a surface or Resistance between 2 points. In the Electronics industry, products such as packaging materials, component storage bags and trays, work bench surfaces, table and floor mats, etc., have resistance values which need to conform to stringent specifications and fall within specified limits. The material characteristics - Conductive, Dissipative and Insulative are also displayed.

### Features

- Surface-to-ground measurement
- Ambient Temperature
- Measurement and Data Hold function
- All indicated on a large backlit LCD display



Eltech 06

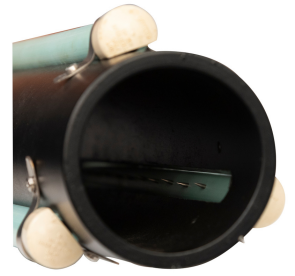
## Static Discharge Palm Plate

The Grounding PALM PLATE is a convenient and quick solution to ensuring that there is no charge on the Human Body before entering any ESD safe area. It has a conductive Stainless Steel electrode plate mounted onto an acrylic backing. The plate can be mounted on the wall at a convenient height and the personnel have to just touch the plate to drain any charge from the body. The Plate is supplied with a Grounding cord which needs to be connected to any ESD earth point. A 2.2 megohm resistor is provided in the ground cord as precaution against risk of shock.



EL-SDPP

## Inline Ionizer



**Eltech - 309**  
Inline Ionizer

The Eltech Inline Ionizer is designed to neutralize static charged materials in pneumatic conveying systems. The Inline Ionizer is used in connection with the conveying of granulate, plastic edge trim, the cleaning of reprocessed material, etc. The Inline Ionizer eliminates material clogs caused by static charge build-ups in the pneumatic conveying system. Once the charges are neutralized, the material flows freely through the conveying system and productivity increases considerably.

The static elimination system consists of two or more static eliminator bars mounted into a steel pipe and power unit. The power unit converts the primary voltage to approx. 5.5kV. It is current limited with a maximum current output of 5mA for safety. The emitter pins in the static eliminator bare are resistively connected to the high voltage, so are shockless in operation. The bars ionize the air passing through the pipe, which eliminates the static electricity in the product being transported.

## Vortex Ionizer

Vortex Ionizer employs a unique ionizing technology to neutralize static electricity and blast away dust and contaminants in injection molding applications.

Vortex Ionizer revolutionizes the cleaning of moldings and components where careful control of contaminants is necessary to maintain production efficiency and reduce the cost of rejects and rework.

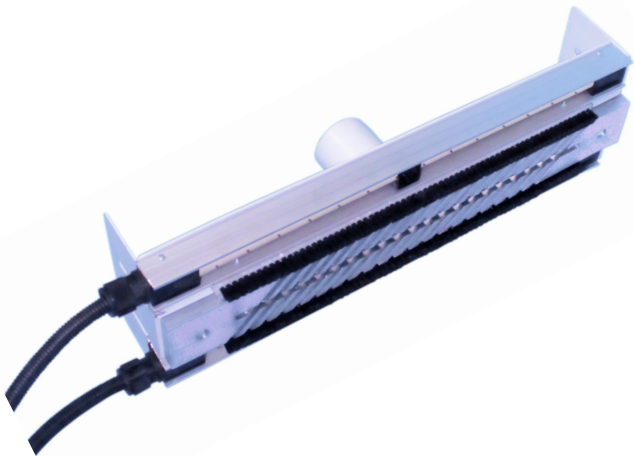
By combining an advanced ionizer with the power of high-thrust, rotating air jets, Vortex Ionizer enables accurate and powerful cleaning of all shapes and sizes of product.

Twin air-powered jets rotate at up to 60 times per second, delivering a 360° flow of ionised air onto the product in a pulsed air hammer effect at up to 240 times per second. This removes contamination and neutralises the static electricity which attracted it.



**Eltech - 310**  
Vortex Ionizer

## Web Cleaning Dust Collector



**Eltech - 306**  
Web cleaning system



**Eltech - 308**  
Dust collector system

Eltech developed this static web cleaning system for high quality of printing. Static web cleaner removes static charge from the material and removes the dirt from the web. The use of ionized air ensure powerful , long range , wide area static neutralization. It is powered by eltech - 335 static charge eliminator.

Dirty webs causing loss of profit & customer dissatisfaction. Excessive down time on printing presses. High reject rates in laminating process. Unacceptable quality in pharmaceutical or food packaging.

### Problems

- Dirty webs causing loss of profit and customer dissatisfaction.
- Excessive down time on printing presses.
- High reject rates in laminating processes.
- Unacceptable quality in pharmaceutical or food packaging.

### Applications

- Printing
- Coating
- Laminating
- Slitting & Rewinding
- Paper Making / Converting
- Food / Medical Packaging



**Eltech - 335**  
Power Supply





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