



Expertise – Passion – Automation



**And see the gain**  
SMC's solutions for static control



# SMC's solutions for static control

Static electricity is the result of an imbalance between negative and positive charges in an object. These charges can build up on the surface of an object until they find a way to be released or discharged, and with the appropriate control, can help to improve the results of the productive process.

The presence of static is more usual than it seems, and a good control of this phenomenon can help to reduce undesired effects such as product rejection, jolts to the workers, faulty packaging and impurities, or can enhance your production capabilities by charging the components to modify their behaviour with other pieces.

Implementing an ionizer does not require complicated installation or maintenance. Basically, you must simply find the right one, plug it in and forget about any inconveniences. Simplicity & effectiveness: that is the motto of our product range.

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## Facts over words



**MARÍA EUGENIA GONZÁLEZ**  
STATIC CONTROL SPECIALIST

Static electricity affects more industrial processes than it may seem. There are plenty of situations where our customers have experienced trouble with production: sometimes it's compromised product quality, at other times it's machine clogging, or it can even result in fatal accidents due to sparks generated next to flammable substances.

For example, one of our customers produces foam sheets that are cut from an initial block of foam. During this process, static electricity built up due to the friction between the blades and the foam block, and the electrostatic potential culminated in electric shocks for the workers and foam sheets getting stuck between them, meaning that the cycle time was increased up to 40%.

By installing one of our bar ionizers, they could get rid of both problems in an easy and affordable way.

Put your trust in SMC's static control solutions and "See the Gain".



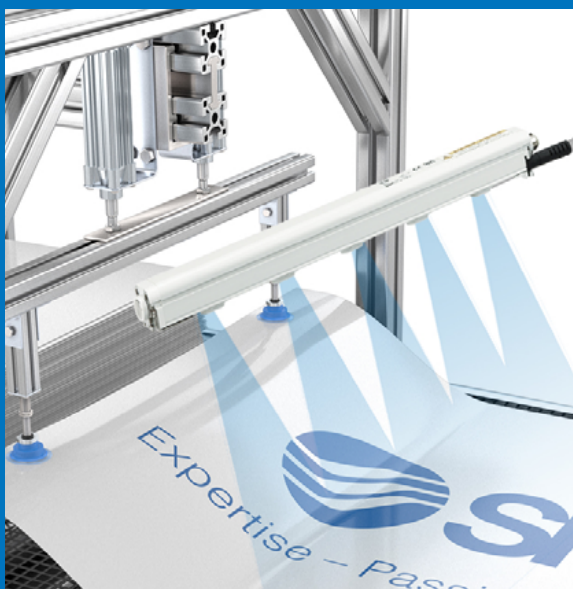
## With SMC's Ionizers you will:

- **Optimise production efficiency** – Avoid product rejection, maintenance labours and machine downtime
- **Create a safe environment for your workers** – Eliminate jolts produced by static
- **Guarantee getting the proper anti-static solution** – Wide range of products for measuring and controlling static electricity.

## Identify your needs

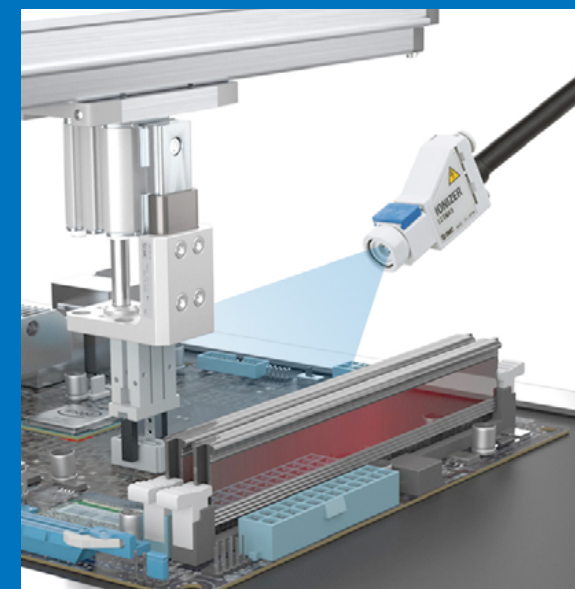
### Keep production moving – Macroscopic static

Processes involving the transport and handling of plastics and polymers are very prone to suffering static problems. Good static control can avoid production stoppages and help to improve the cycle time, as, for example, in a line where bottles clog the conveyor due to the static charges, rendering the process unstable.



### Quality every time – Microscopic static

Electronic parts and semiconductors need good control of static electricity to prevent ESD (Electrostatic discharge). Uncontrolled ESD can have a damaging effect on sensitive devices, resulting in lost production and poor-quality products with shortened lifetime. The right choice of ionization is crucial e.g., for wafer processing: By installing ionizers with excellent balance and silicon emitters, dangerous charges can be eliminated, thus leading to a high-performance process and reduction of waste.



Our local teams of highly trained experts are on hand to help you achieve your goals

 **Your safety in our focus**

 **Energise your efficiency**

 **Size & weight optimisation**

 **Smart Flexibility**

 **Industrial maintenance**



## Static electricity control

### Remote control and monitoring



### In-place control



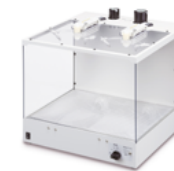
### Manually-operated ionizing



### No compressed air supply



### Desktop applications



## Static electricity measuring and detecting

### Sensing



### Measuring



### Monitoring



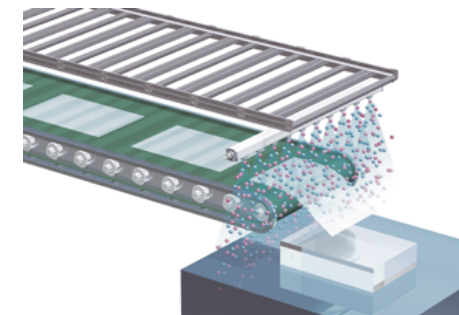
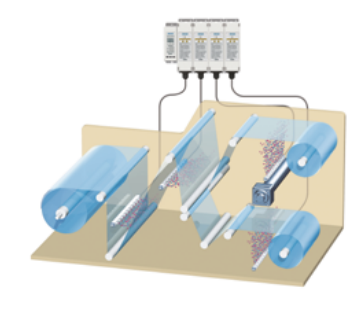
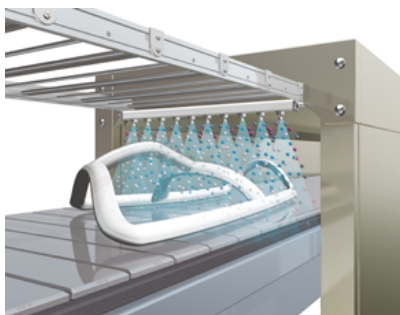
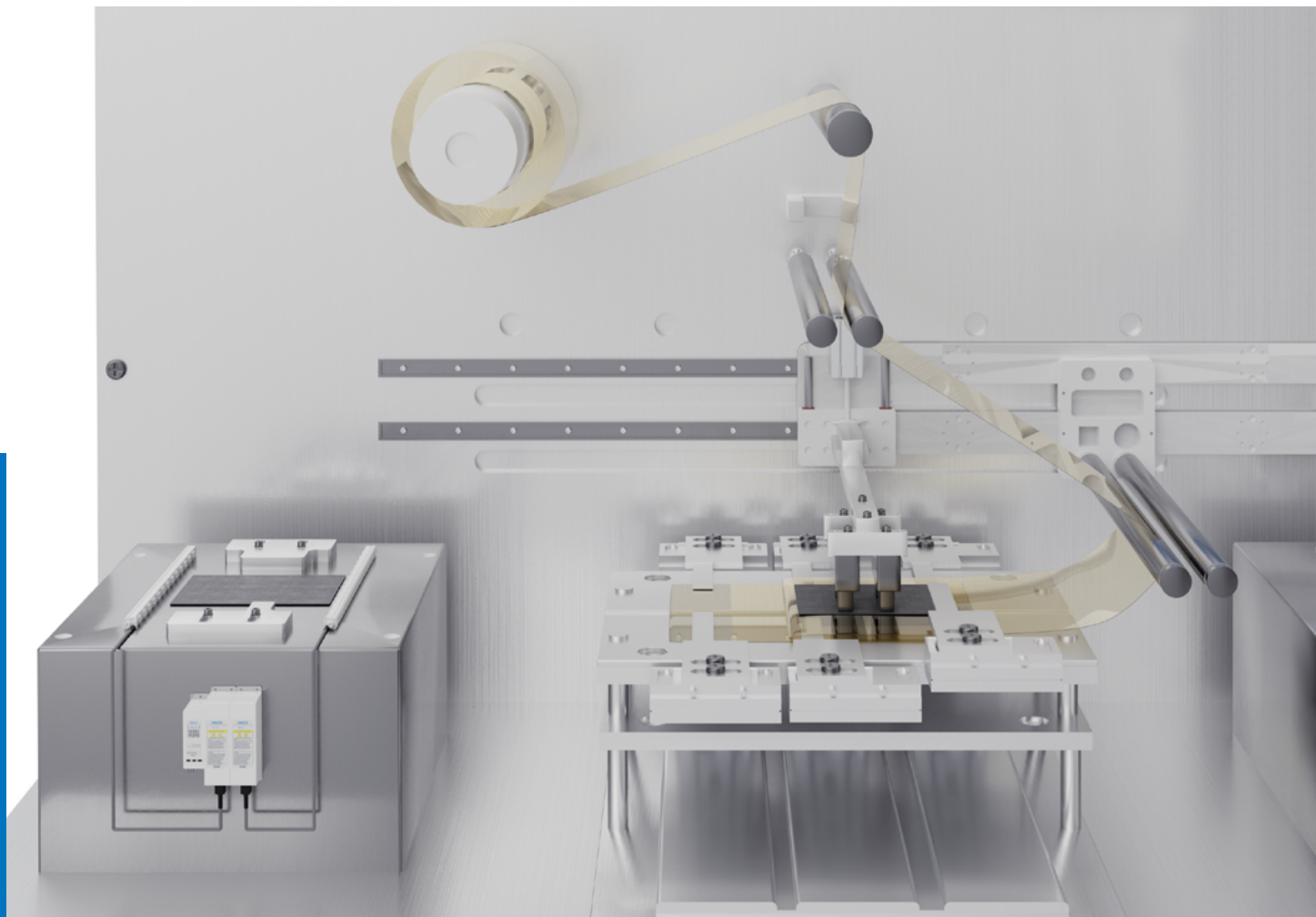


## Bar type ionizer, separate controller

⊕ IZT40/41/42 Series

*Fast & Efficient static removal wherever you want*

- **Benefit from its compact dimensions** – Bar and nozzle type ionizers adapted to work separately from the controller
- **Effortlessly control status and operation**  
– One controller can control up to 4 ionizers. Multiple alarms & functions
- **Enjoy IO-Link advantages with SMC** – Your one supplier for your automation needs
- **Monitor and adjust it with ease** – The separation of components enables excellent access to the controller.



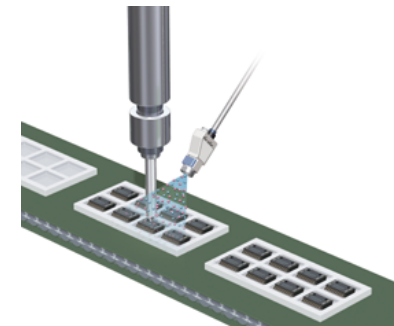
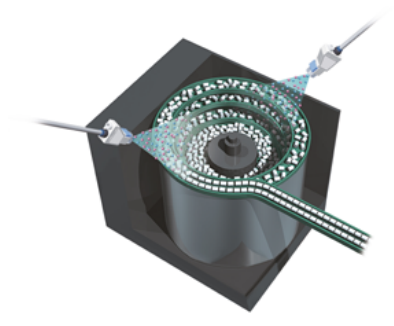
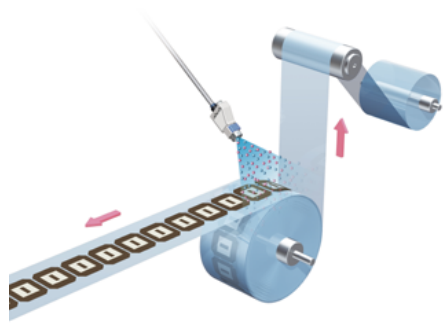
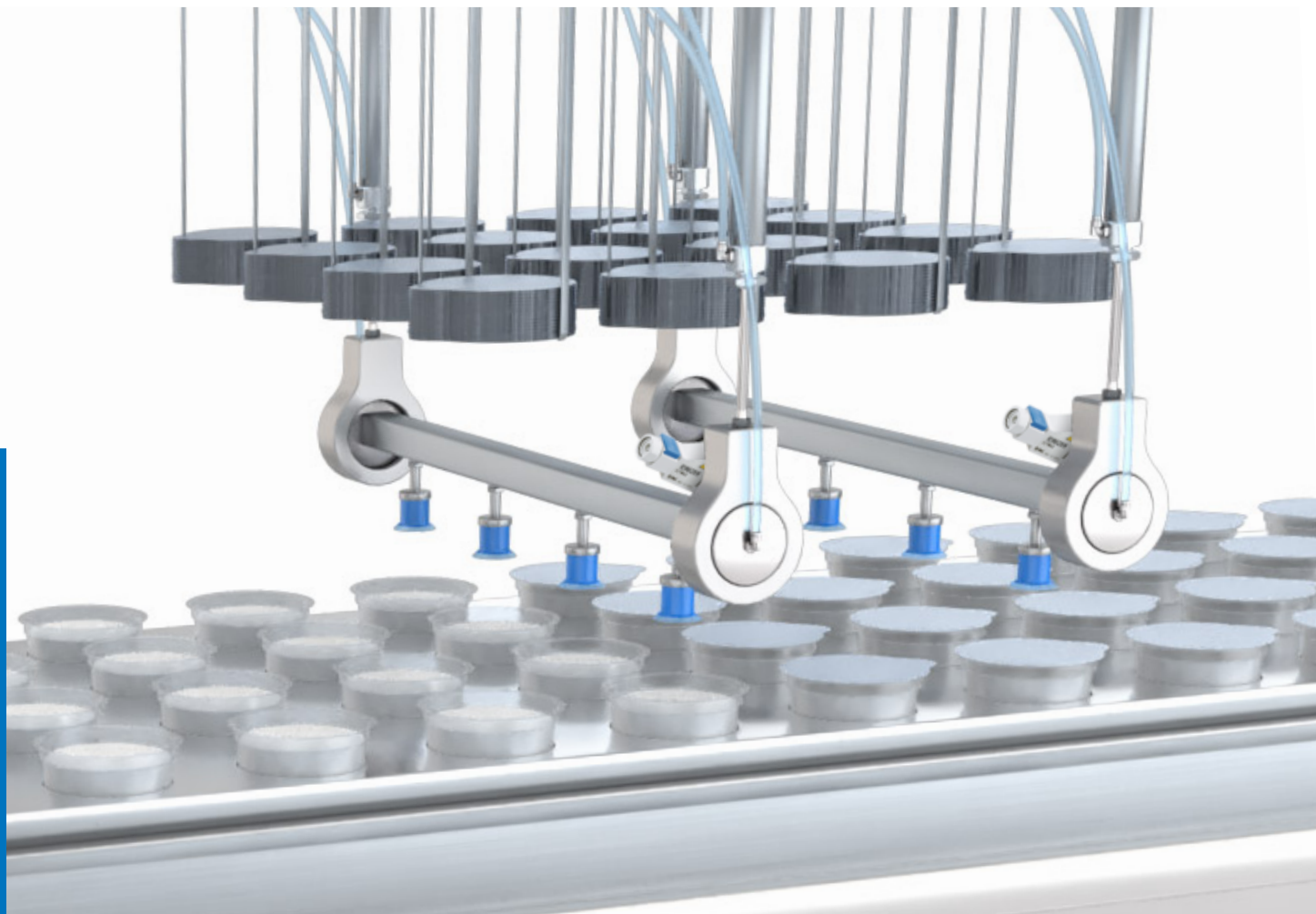


## Nozzle type ionizer, separate controller

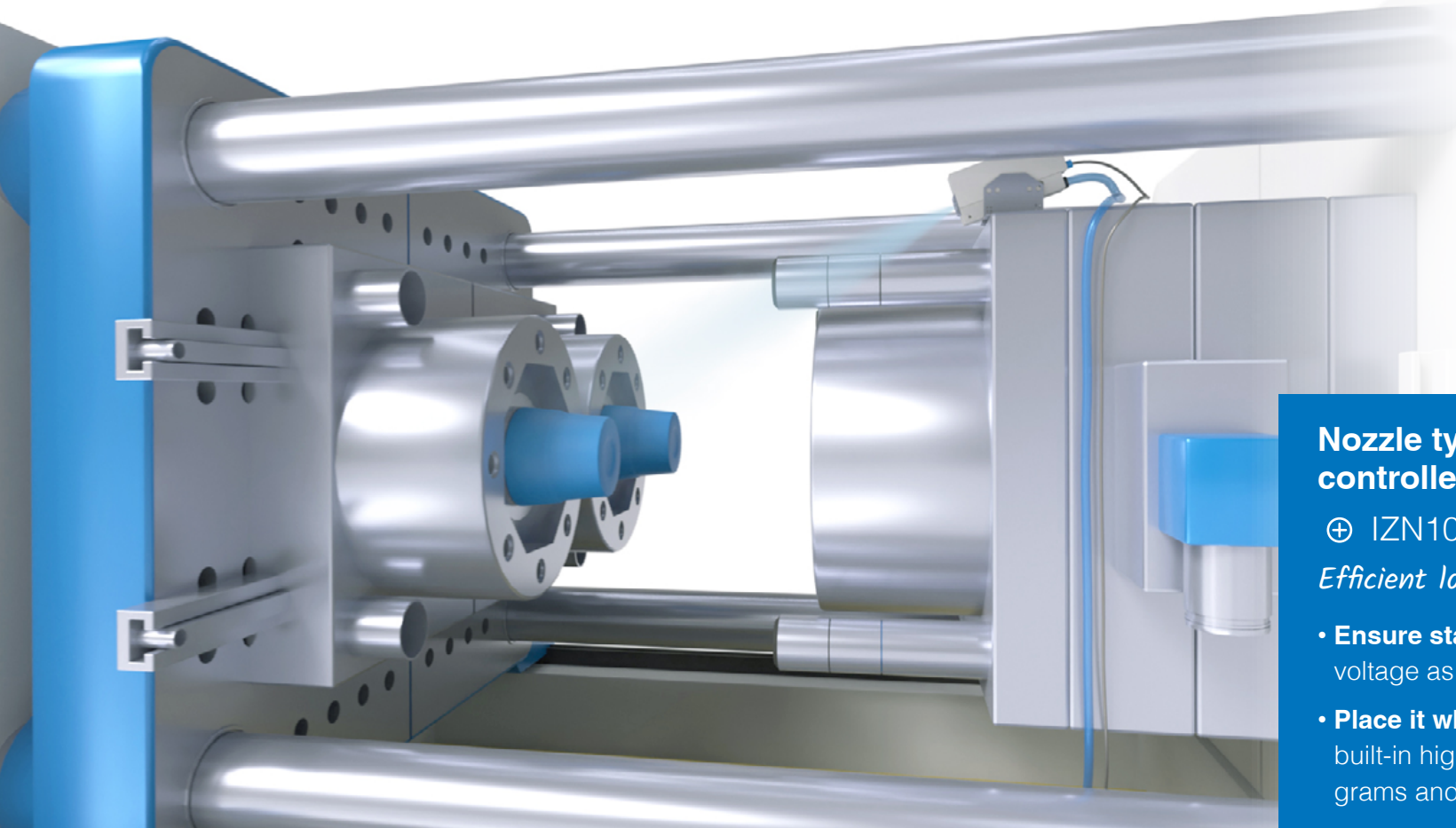
### ⊕ IZT43 Series

*Fast & Efficient static removal wherever you want*

- **Fit it in narrow spaces** – Nozzle type ionizers adapted to work in specific areas separately from the controller
- **Effortlessly control status and operation** – One controller can control up to 4 ionizers. Multiple alarms & functions
- **Enjoy IO-Link advantages with SMC** – Your one supplier for your automation needs
- **Monitor and adjust it with ease** – The separation of components enables excellent access to the controller.





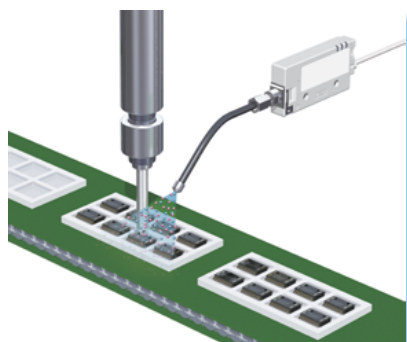


## Nozzle type ionizer, integrated controller

⊕ IZN10E Series

*Efficient local static removal*

- **Ensure static effects are gone** – Offset voltage as low as  $\pm 10$  V
- **Place it wherever you want** – Ionizer with built-in high voltage power supply all in 80 grams and 16 mm thickness
- **Adapt it easily to your application** – Several nozzle variations
- **Maintain it easily** – Electrode needle contamination detector & Emitter, body and cartridge can be easily disassembled.



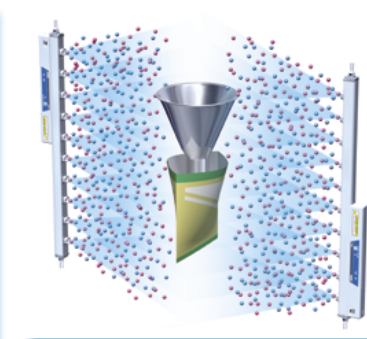
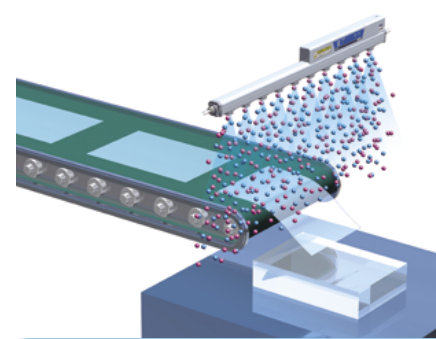
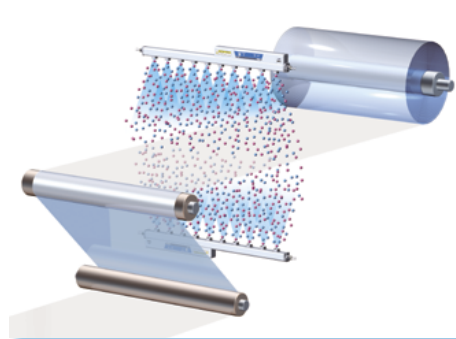
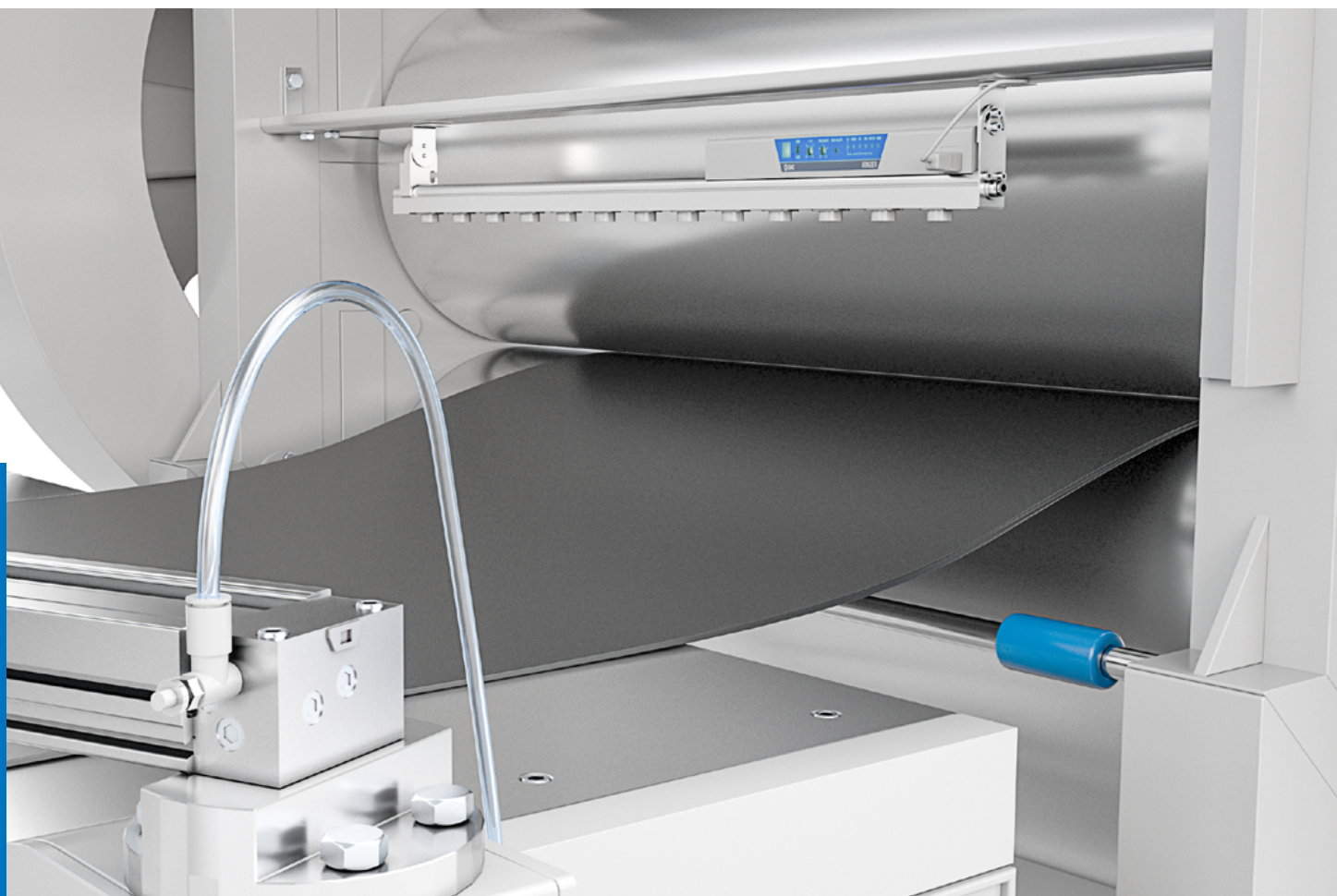


## Bar type ionizer, integrated controller

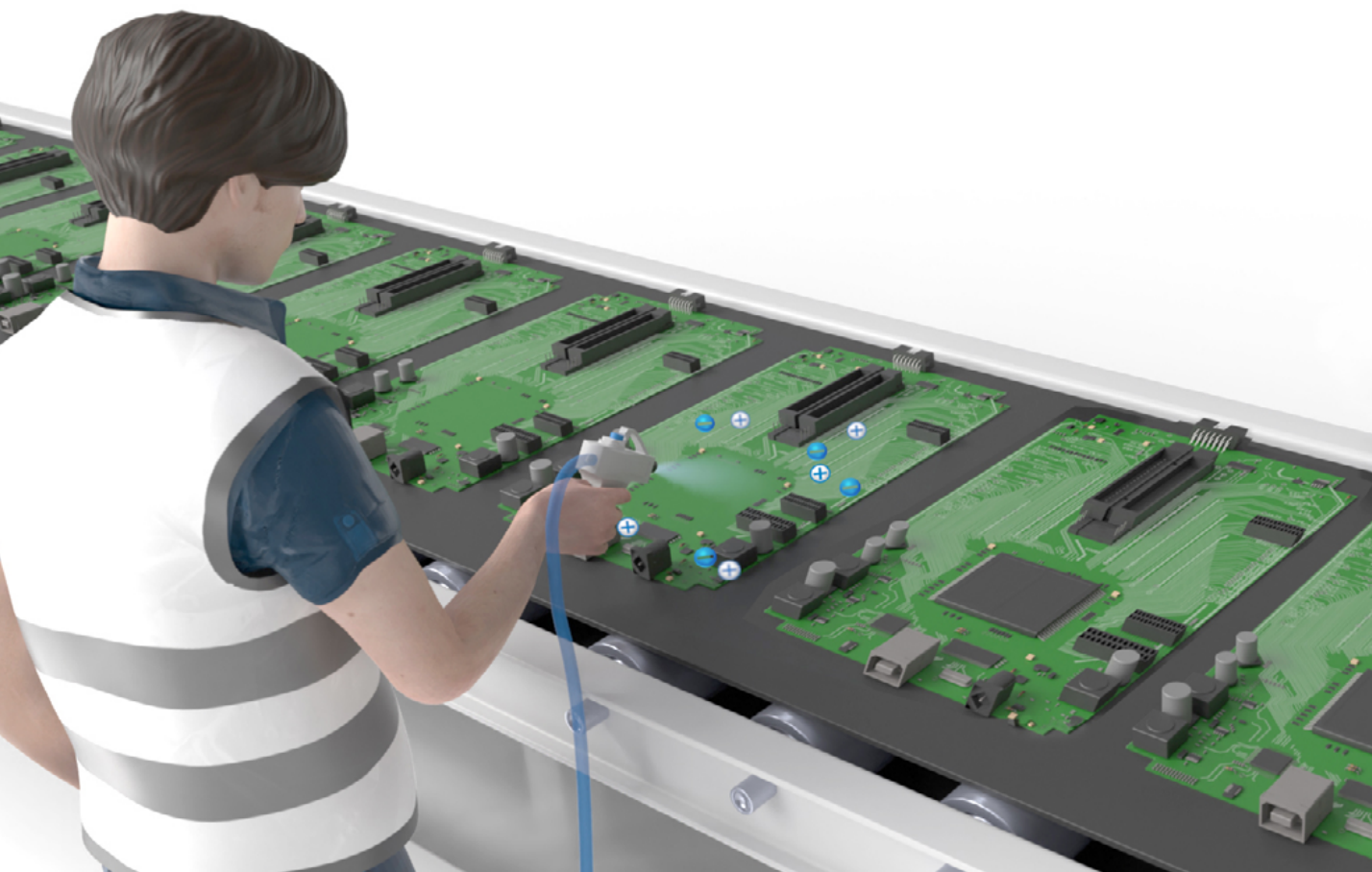
### ⊕ IZS40/41/42 Series

*Integrated solution for fast and effective static removal*

- **Find the most suitable solution** – Dual AC type, feedback sensor type or standard type
- **Adapt the ion balance to your workpiece** – High accuracy option for an automatic offset voltage adjustment
- **Reduce maintenance tasks** – Low maintenance emitters and maintenance detection signal option.





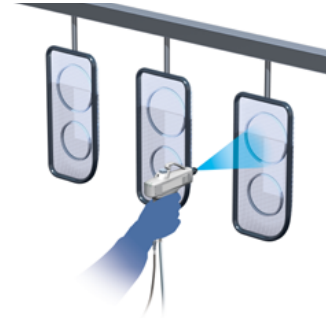
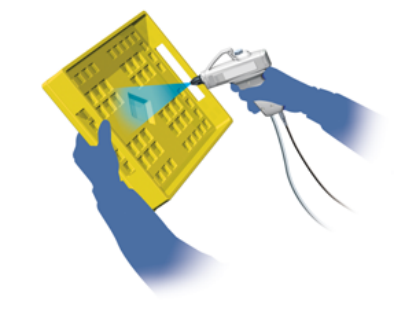
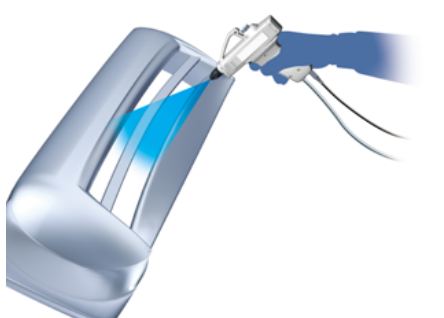


## Gun type ionizer

⊕ IZG10 Series

*Point, shoot and neutralise*

- **Neutralise static in a simple, safe & precise way** – Rapid neutralisation, 0.3 s with a very low residual charge. OSHA1910.242b compliant (bypass nozzle option)
- **Make it fit your production needs** – Flow rate adjustable. Continuous or pulse air blow selectable
- **Lightweight and hands-on** – As light as 0.2 kg with an easy-to-pull trigger
- **Easy maintenance** – Easy emitter replacement and fast cleaning. LEDs to easily know the status at a glance.





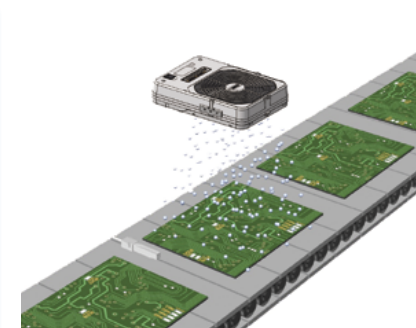
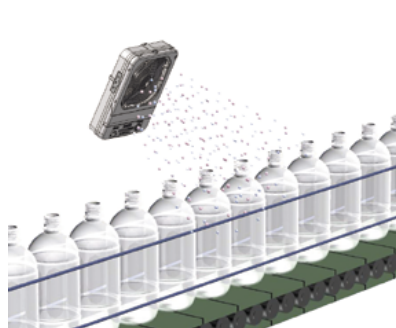


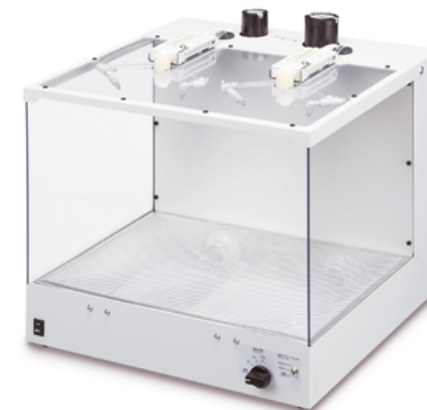
## Fan type ionizer

⊕ IZF10 Series / ⊕ IZF21/31 Series

*Fast static removal in your hands*

- **Remove static wherever you want** – 3 portable compact and light solutions. Ideal for those locations with no air supply
- **Reduce your consumption** – Rapid neutralisation in as little as 0.5 seconds
- **Operate it easily** – Multiple functions, features and alarms.



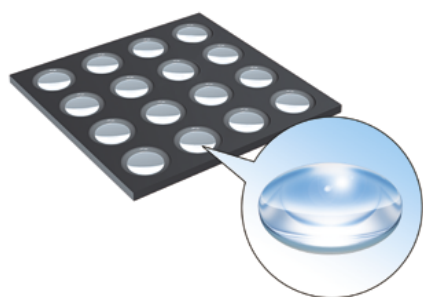


## Desktop duster box

### ⊕ ZVB Series

*Box up your dust and static issues*

- **Increase your efficiency** – Separated ion blow/air blow structure, plus the integration of 3 processes in one convenient place
- **Minimise maintenance** – Easy-to-remove, cleanable and replaceable emitter, plus maintenance-free pneumatic dust collector
- **Achieve operating comfort** – Automatic start-up after workpiece detection.



# Sensing, measuring & monitoring

SMC's solutions for static control

The first step to deal with static electricity is to detect and measure it. With our specialised products you will be able to identify and display the electrostatic potential to specify the necessary measures to control it.



## Electrostatic sensor

### ⊕ IZD10 Series

- Detect the electrostatic potential
- Obtain an output in an analogue voltage
- Potential measurement:  $\pm 20$  kV (detected at a 50 mm distance).



## Handheld electrostatic meter

### ⊕ IZH10 Series

- Measure and display the electrostatic potential
- Compact & lightweight
- Rated charge amount range:  $\pm 20.0$  kV.



## Electrostatic sensor monitor

### ⊕ IZE11 Series

- Monitor and display the electrostatic potential
- Two-colour display
- Output: switch output x2 + analogue output (1 to 5 V, 4 to 20 mA).

# Other antistatic products

Static doesn't always need to be managed in a corrective way, but can also be actively prevented. With our antistatic products such as fittings, tubing, vacuum pads and flow controllers, you will avoid the generation of static electricity and prevent its consequences.



## Antistatic fittings

### ⊕ KA Series



## Antistatic tubing

### ⊕ TAS Series



## Conductive vacuum pads

### ⊕ ZP, ZP2, ZP3 Series



## Antistatic speed controller

### AS-X260 Series



Discover more on  
SMC Business Continuity Plan

## Sustainable growth also means ensuring uninterrupted operations

We are committed to ensuring that SMC is prepared for any emergency and that our business activities will not stop in the event of such circumstances. SMC aims to fulfil our product supply responsibilities and maintain our customers' trust by contributing to both sustainable growth and the expansion of technological innovations.

SMC, as a comprehensive manufacturer of automatic control equipment that supports automation, is able to promptly provide products that meet our customers' needs anywhere in the world.

### Finance BCP

#### Safe & Solid financial base

In the event of an emergency, SMC can provide a safe and solid financial base (with cash, deposits, and equity capital) that will sufficiently cover the working capital and funds needed to rebuild buildings and the equipment required for business continuity. This is done to provide peace of mind to our customers and workers alike.

### Information security BCP

#### Vital data kept safe

Strengthen information security for protection against computer viruses and cyberattacks, plus the installation of data centres to establish a disaster recovery system. Your information is safe with us.

### Sales BCP

#### Consistent sales support

8,700 sales engineers worldwide ready to recommend the best solution for you.  
Over 83 global locations to make sure that wherever you are, we are there too.

### Production BCP

#### Ensure customer order fulfilment

Reliable delivery for you thanks to our 8 global logistic centres and 34 production sites, 10 of which are located in Europe. Moreover, flexibility to rapidly respond to any sudden change in the manufacturing environment.

**Aiming to gain your trust  
Sustainability through  
reliability**

### Engineering BCP

#### Consistent technical support

1,700 engineers at our 5 technical centres around the globe (2 in Europe - Germany and UK).



Expertise – Passion – Automation

[www.smc.eu](http://www.smc.eu)

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