



SMC'S SOLUTIONS FOR STATIC CONTROL

**And see the
gain**

Expertise
Passion
Automation



SMC solutions for static control

Static electricity is the buildup of a positive or negative electrical charge. These charges can increase on the surface of an object until they find a way to be released or discharged. Ionizers can neutralise and prevent the build up of a static charge to improve production processes.

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 attraction, product repulsion, shocks to operators, 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.

Static electricity is often underestimated, but it can significantly impair production processes.

The challenges faced by our customers can be varied. Problems with static electricity can often be divided into the following areas:

- Electric shocks to people
- Adhesion of components or foreign bodies such as dust particles
- Defects in electrical components caused by static electricity.

Take one of our customers, for example, who manufactures plastic parts using injection moulding machines. Plastic granules are pressed into moulds using high pressure and heat. The newly manufactured parts are then cooled on conveyor belts, transported to containers and later filled into sacks. The cooling process generates static electricity on the surface. The charge on the individual parts may be small, but increases as they collect in the containers, leading to an electric shock when parts are removed for quality control. An ioniser located directly at the inlet to the containers removes the static electricity quickly and reliably, protecting quality assurance employees from electric shocks.

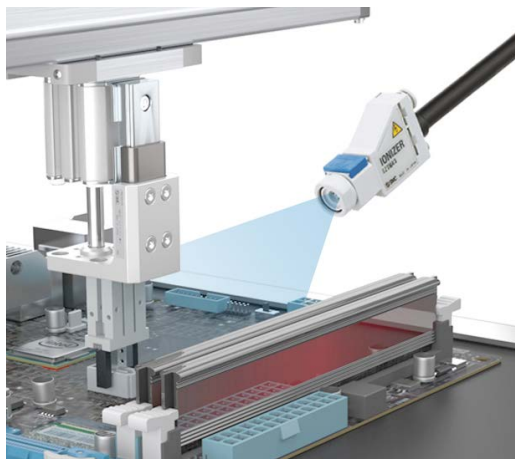
Trust SMC's solutions for efficient static electricity dissipation and strengthen your manufacturing processes. Our product range is as diverse as the ways in which static electricity can manifest itself.



Daniel Rellstab
Product Manager
SMC Switzerland AG

And see the gain

Identify your needs



Quality every time – Microscopic static

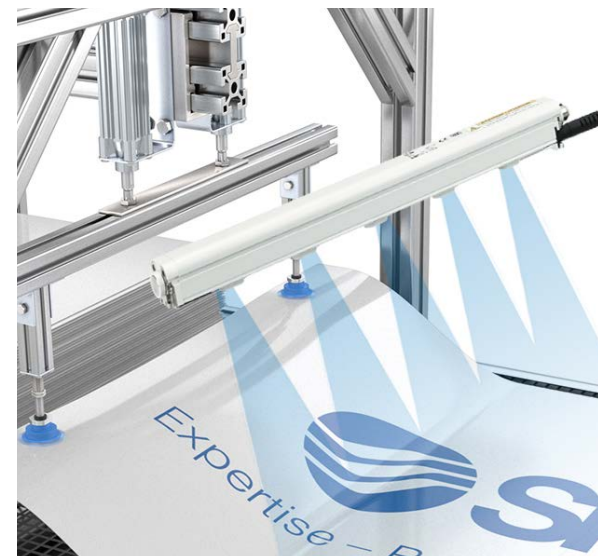
Electronic parts and semiconductors need good control of static electricity to prevent ESD (Electrostatic discharge). Uncontrolled ESD can have a damaging effect on sensitive devices, resulting in lost production and poor-quality products with shortened lifetime. The right choice of ionization is crucial 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.

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.

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 PET bottles clog the conveyor due to the static charges, rendering the process unstable.



Products for...

Static electricity control

5 Remote control and monitoring



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14 Desktop applications



Static electricity measuring and detecting

15 Sensing



15 Measuring

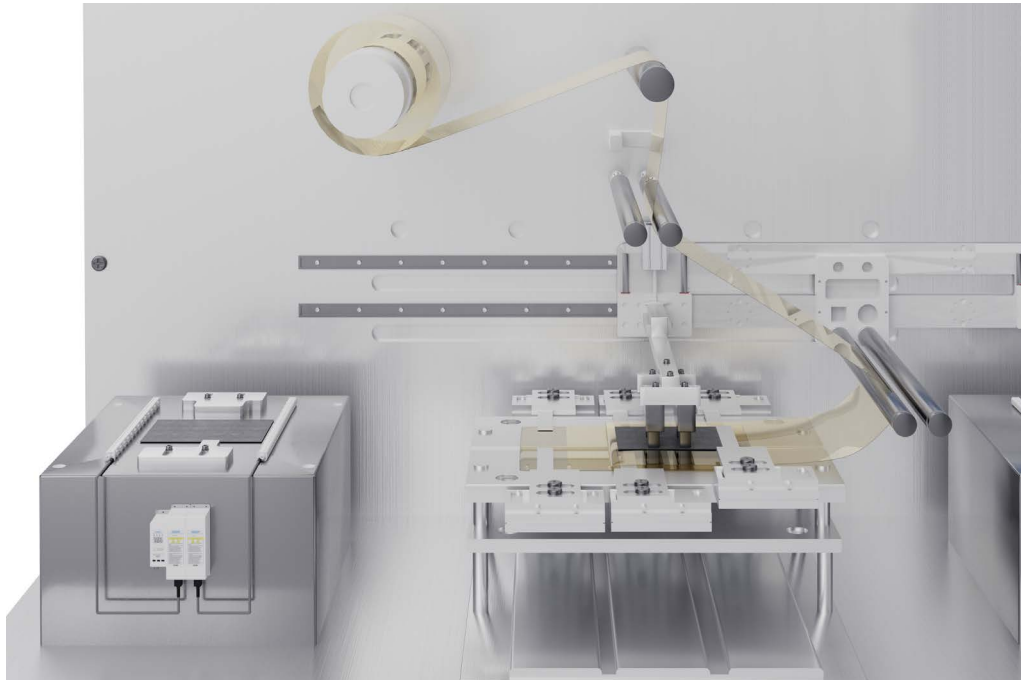


15 Monitoring



Other static products 16

Remote control and monitoring

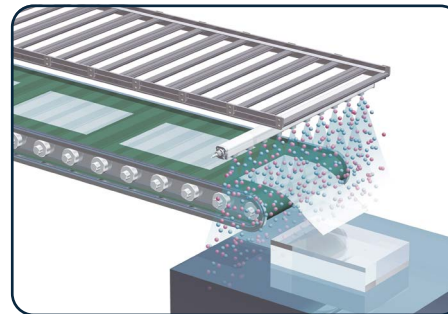
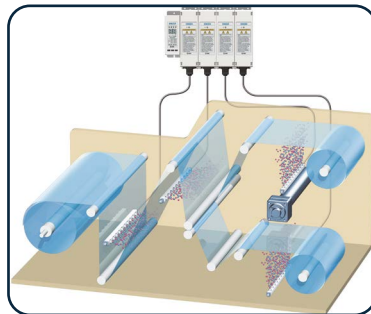
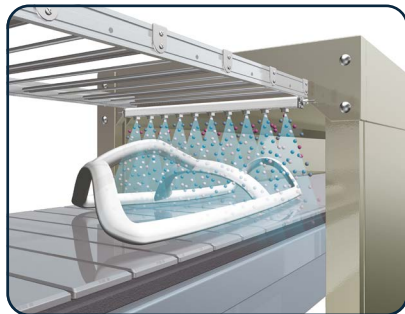


Bar type ionizer, separate controller

⊕ 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.



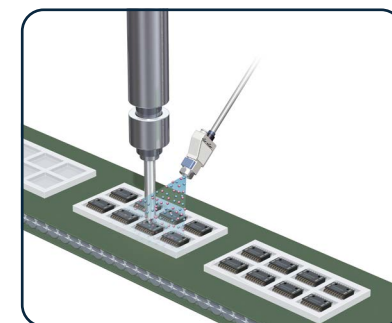
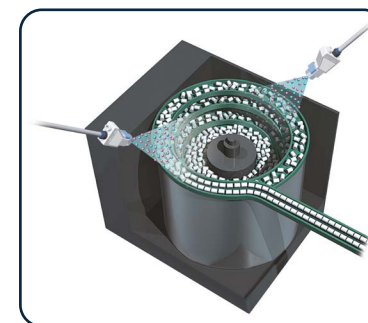
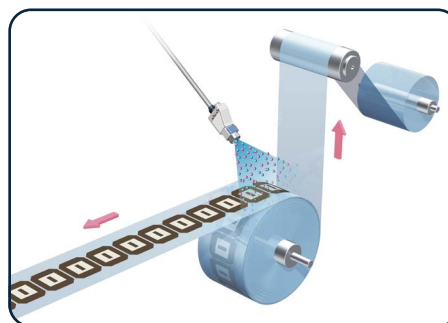
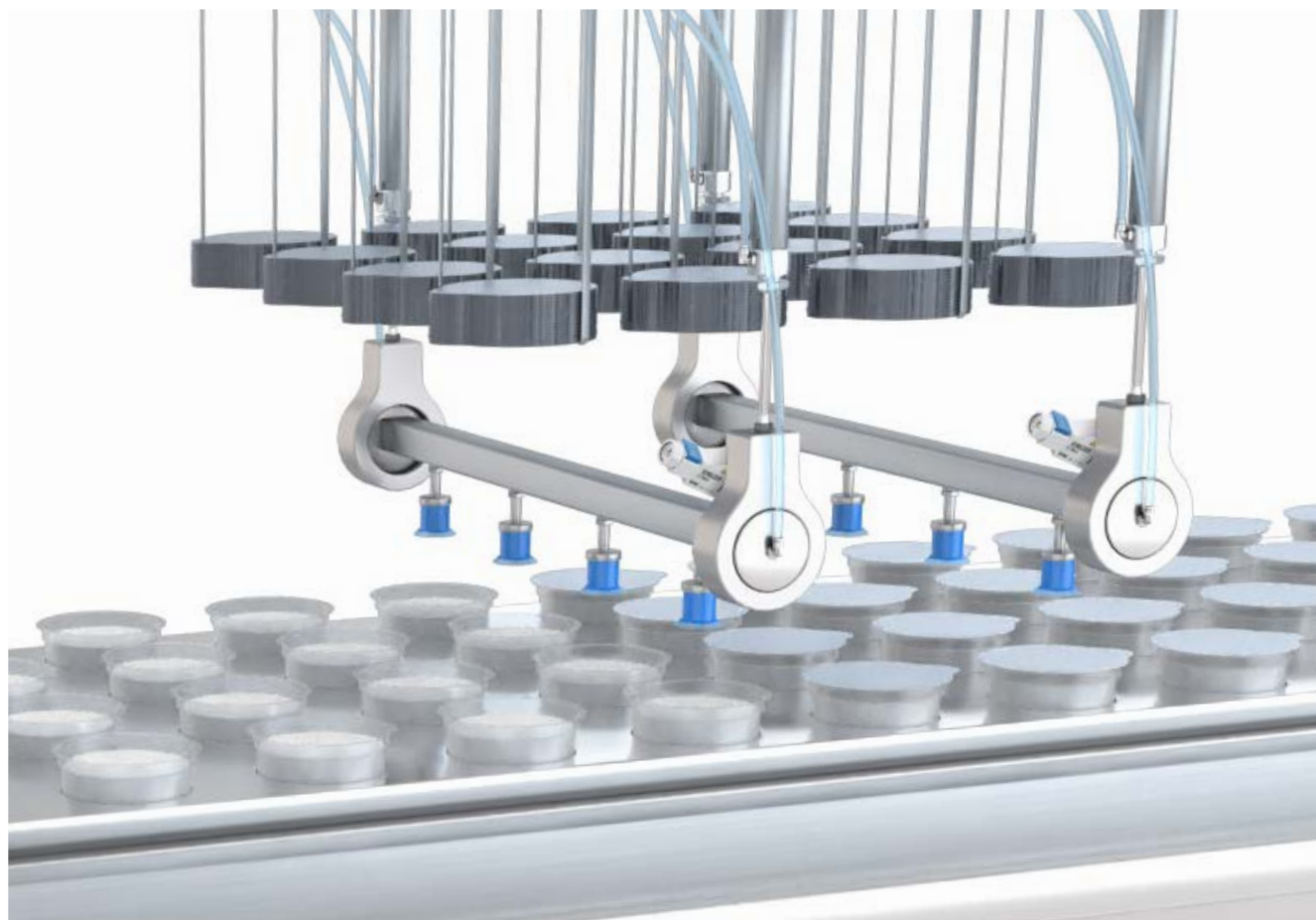


Nozzle type ionizer, separate controller

⊕ 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.



All-in-one control

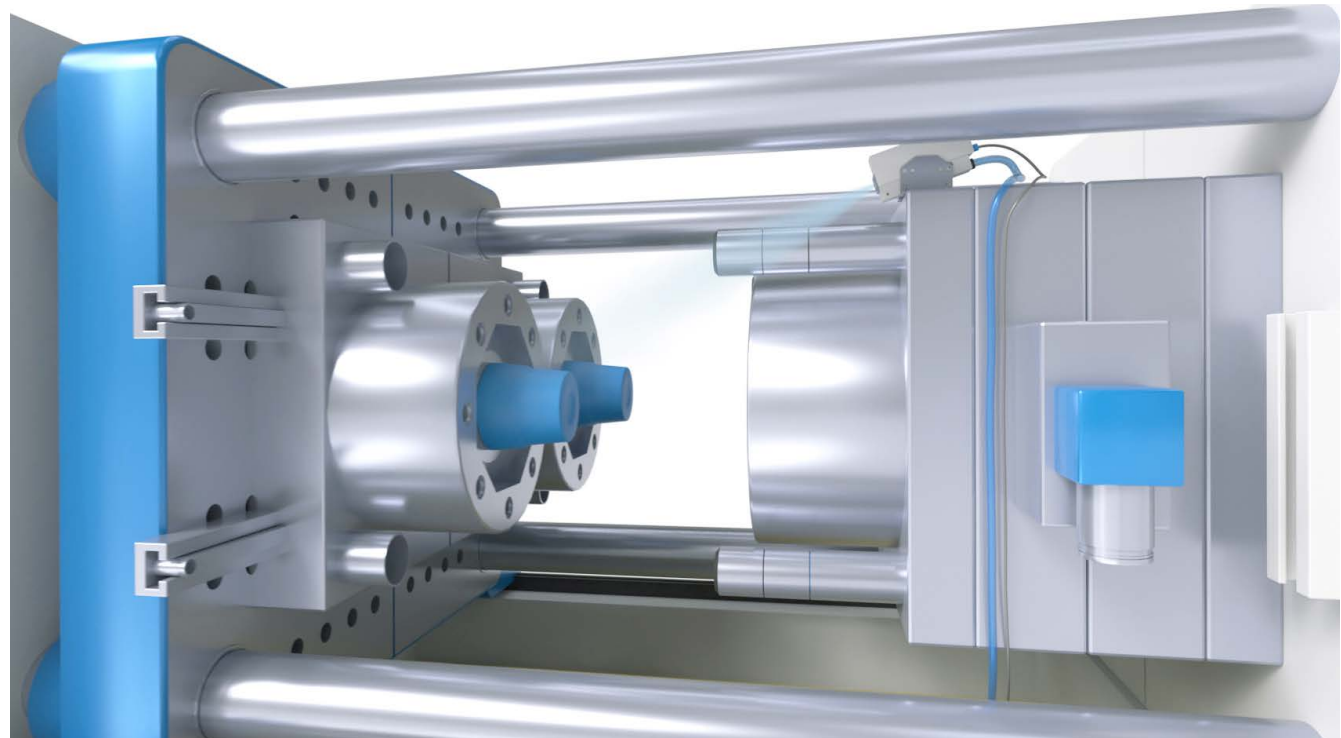


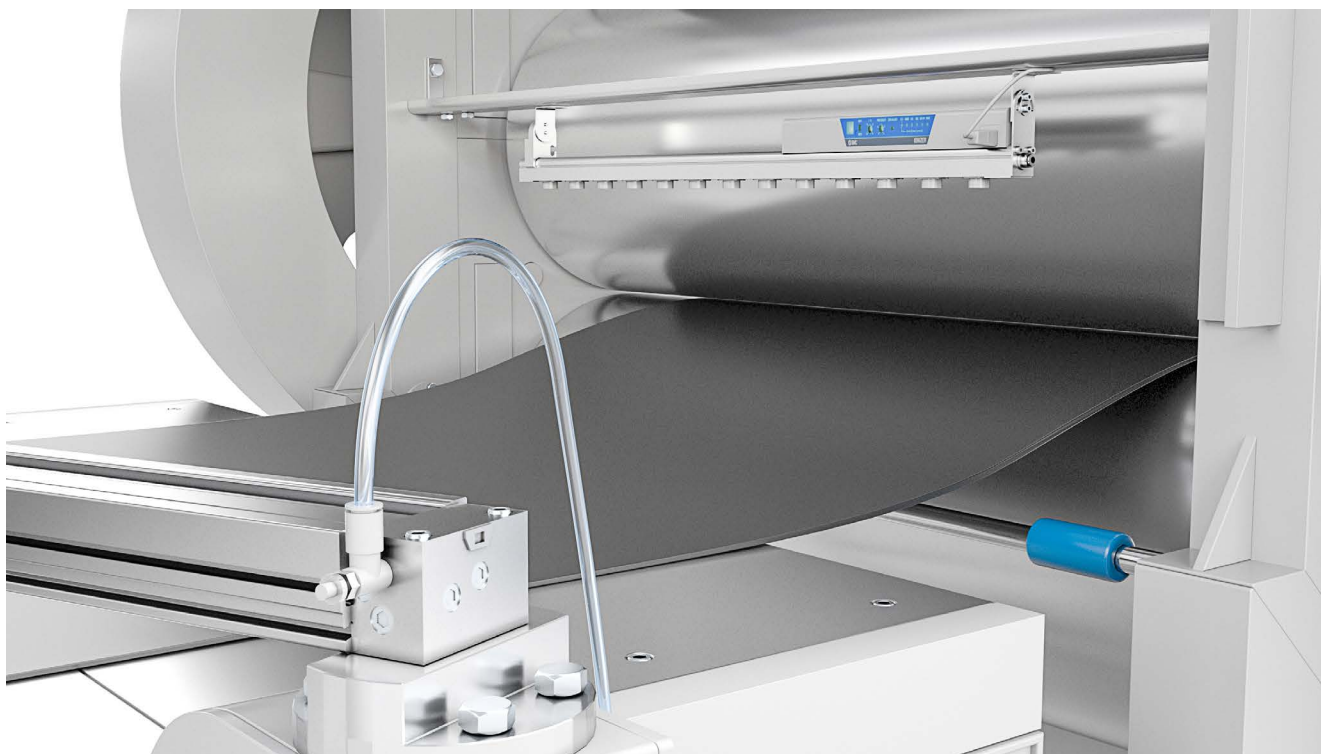
Nozzle type ionizer, integrated controller

⊕ IZN10E Series

Efficient local static removal

- **Ensure static effects are gone** – Offset voltage as low as ± 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.



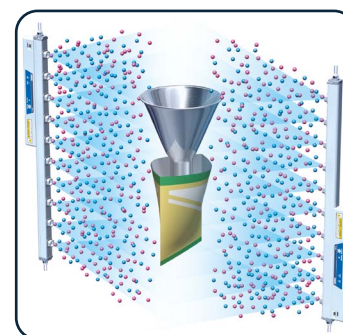
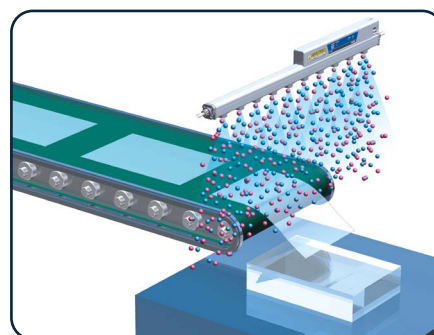
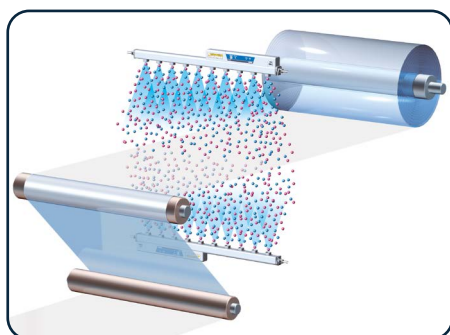


Bar type ionizer, integrated controller

⊕ 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.



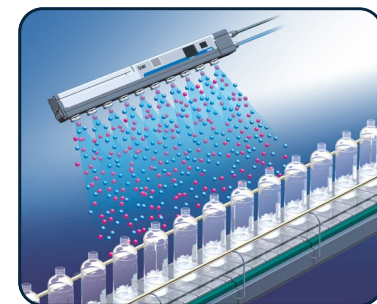
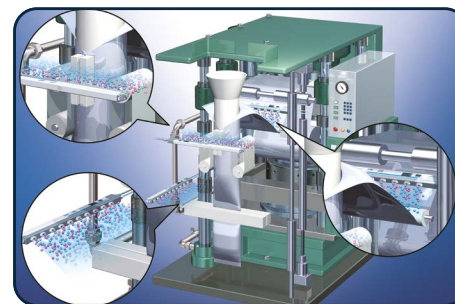
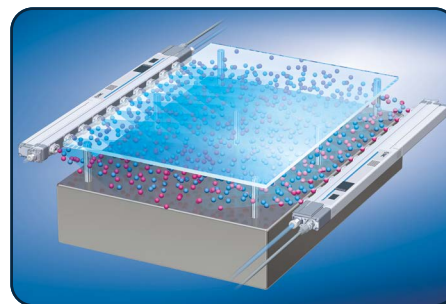


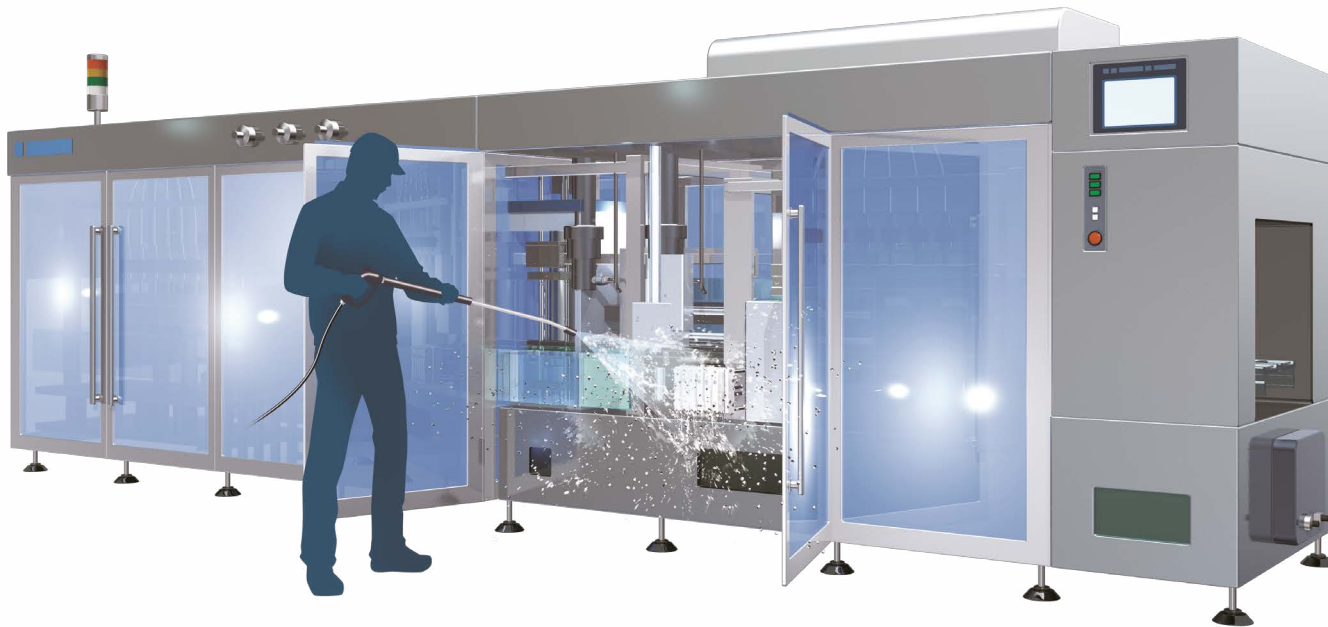
Bar type ionizer

⊕ IZS51 Series

Optimise air, eliminate static

- **Streamline the control of static** – Option for integrated 2-port valve for reduced consumption and installation labour
- **Reduce setting errors and setup time** – IO-Link communication for monitoring of operating status
- **Get more information at a glance** – Integrated LCD display
- **Go for a seamless installation** – Compact and flat profile. Electrical connection and piping on the same side. Integrated power supply.



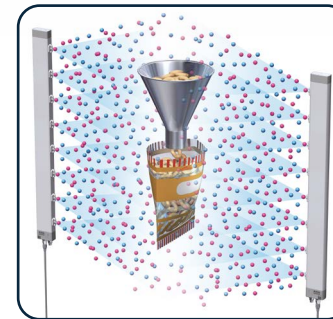
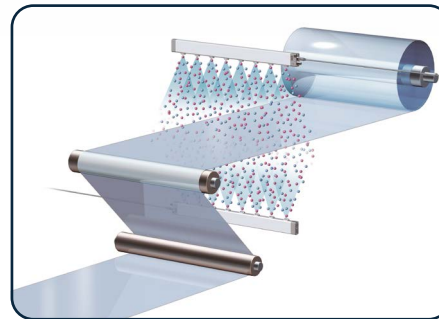
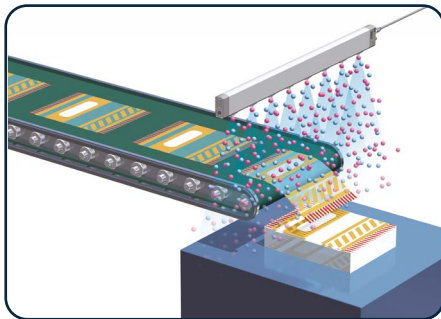


Bar type ionizer, dustproof and water- resistant

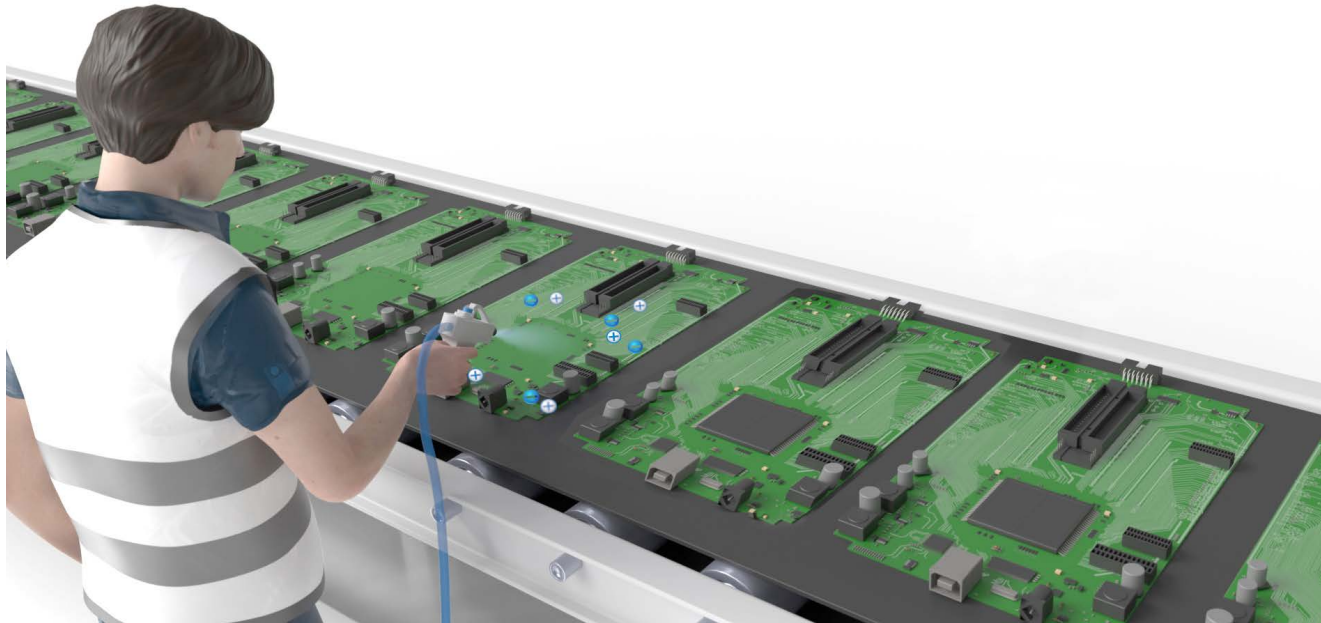
IZSW10 Series

Ready for washdown zones

Ask our experts [+](#)



Manually-operated ionizing

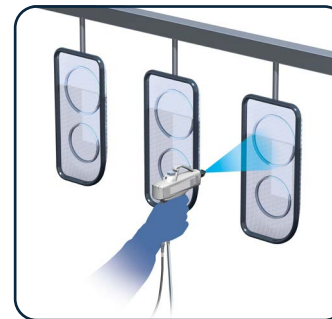
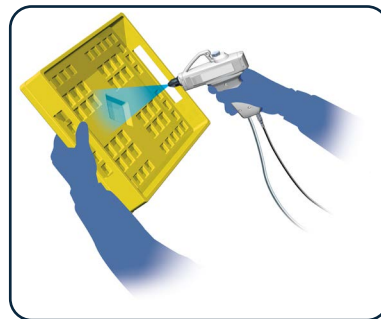
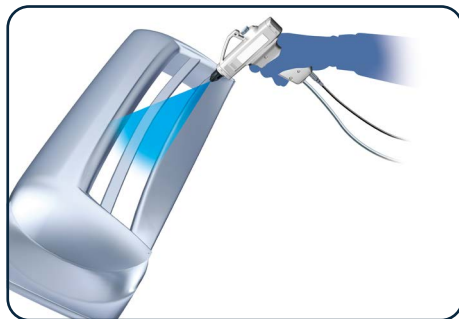


Gun type ionizer

⊕ 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.



No compressed air supply



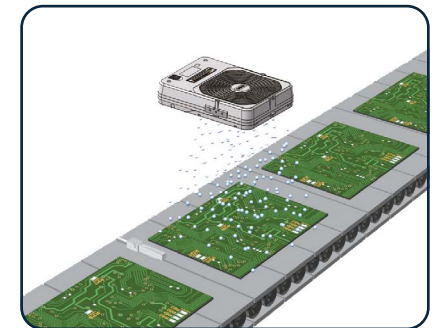
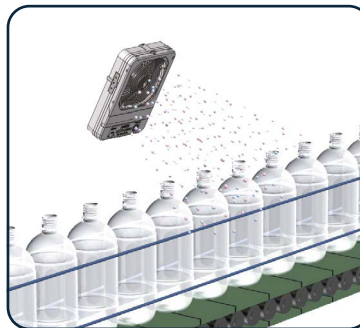
Fan type ionizer

- ⊕ 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.



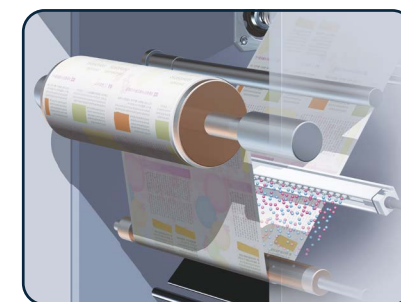
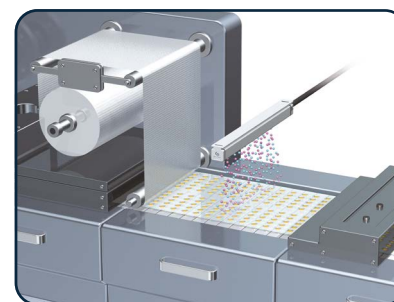
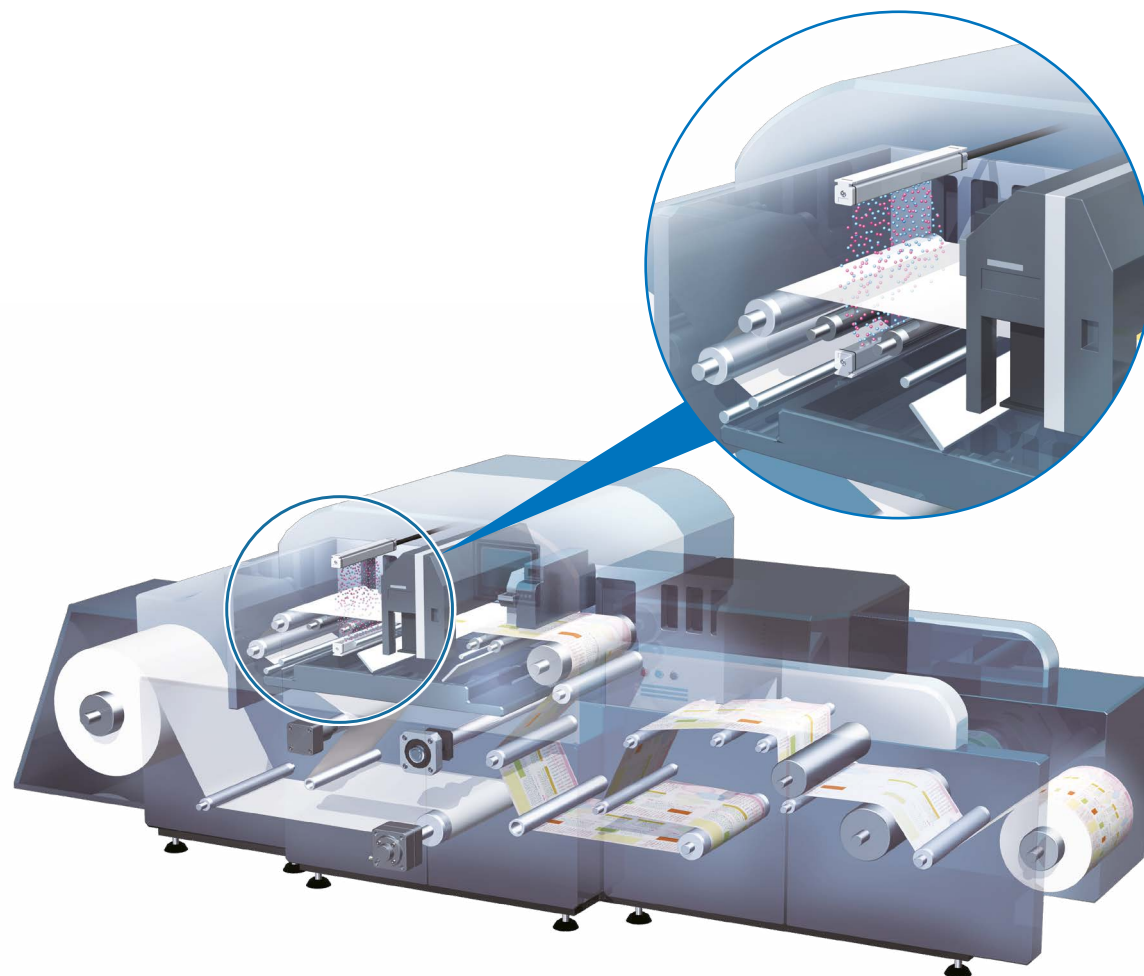


Slim bar type ionizer

⊕ IZT44/45 Series

Neutralise static in restricted spaces

- **Reach hard-to-access workpieces** – Compact bar dimensions (23 mm height, 20 mm width)
- **Maximise installation and setup** – Choice of simplified and multifunctional controller module
- **High powered static removal** – Close density of emitters provides high speed operation
- **Expand and adapt configuration easily** – Branch connection of multiple bars to single controller by plug and play is possible.



Desktop applications



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

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: ± 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: ± 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

⊕ TAU Series



Conductive vacuum pads

⊕ ZP, ZP2, ZP3 Series



Antistatic speed controller

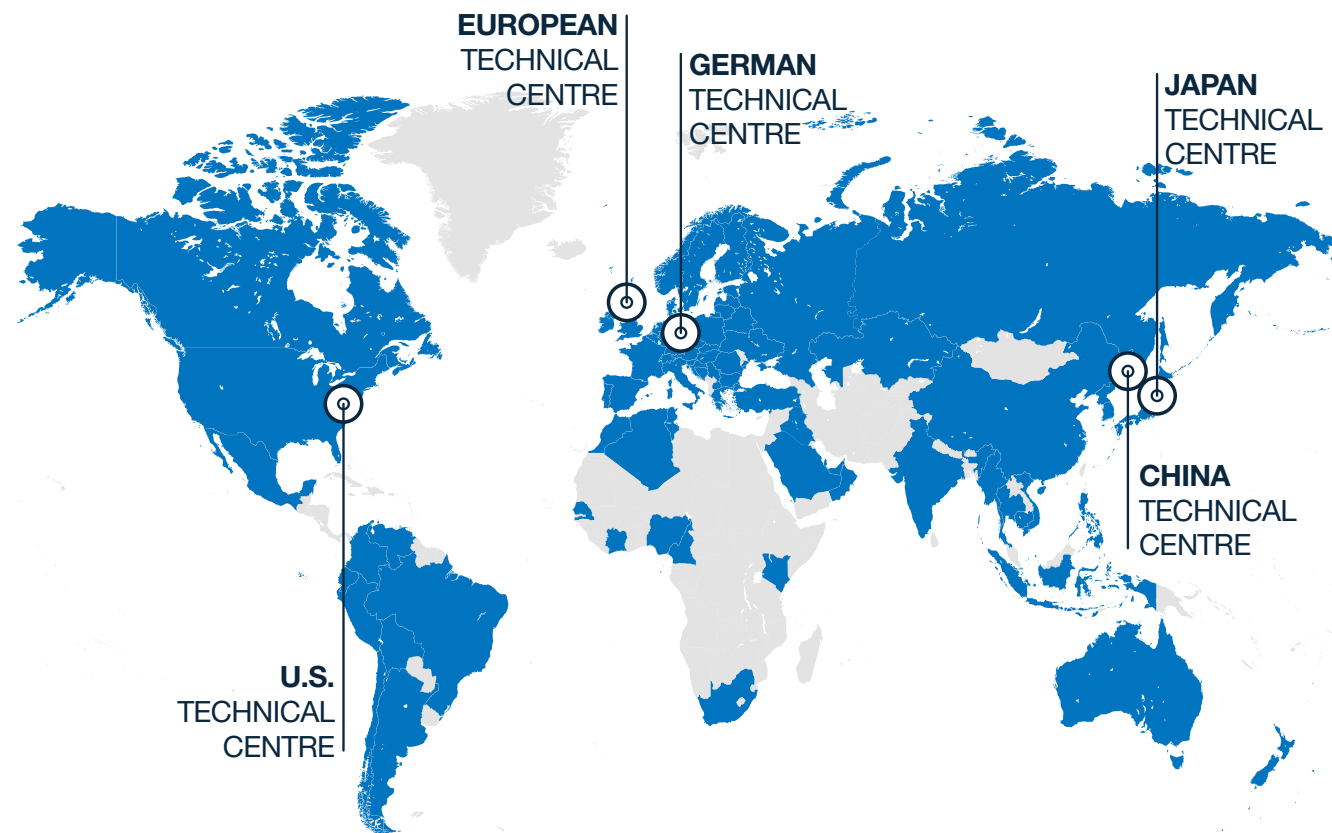
AS-X260 Series

Our support network

SMC's worldwide commitment

One of the things we do best at SMC is **being close to our customers**. Local support, on a global scale.

With **support** in over **500 locations** across **80 countries** and regions **worldwide**, our sales force of **7000 experts** maintains **close communication with customers**.



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.

Production BCP

Ensure customer order fulfilment

Reliable delivery for you thanks to our 9 global logistic centres and 38 production sites worldwide, 10 of which are located in Europe. Moreover, flexibility to rapidly respond to any sudden change in the manufacturing environment.

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.

Engineering BCP

Consistent technical support

2,100 engineers at our 5 technical centres around the globe (2 in Europe – Germany and UK).

Sales BCP

Consistent sales support

7,000 sales engineers worldwide ready to recommend the best solution for you. Over 80 global locations to make sure that wherever you are, we are there too.

[+ Discover more](#)



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