



static control made **Easy!**

Simco-Ion  
catalogue



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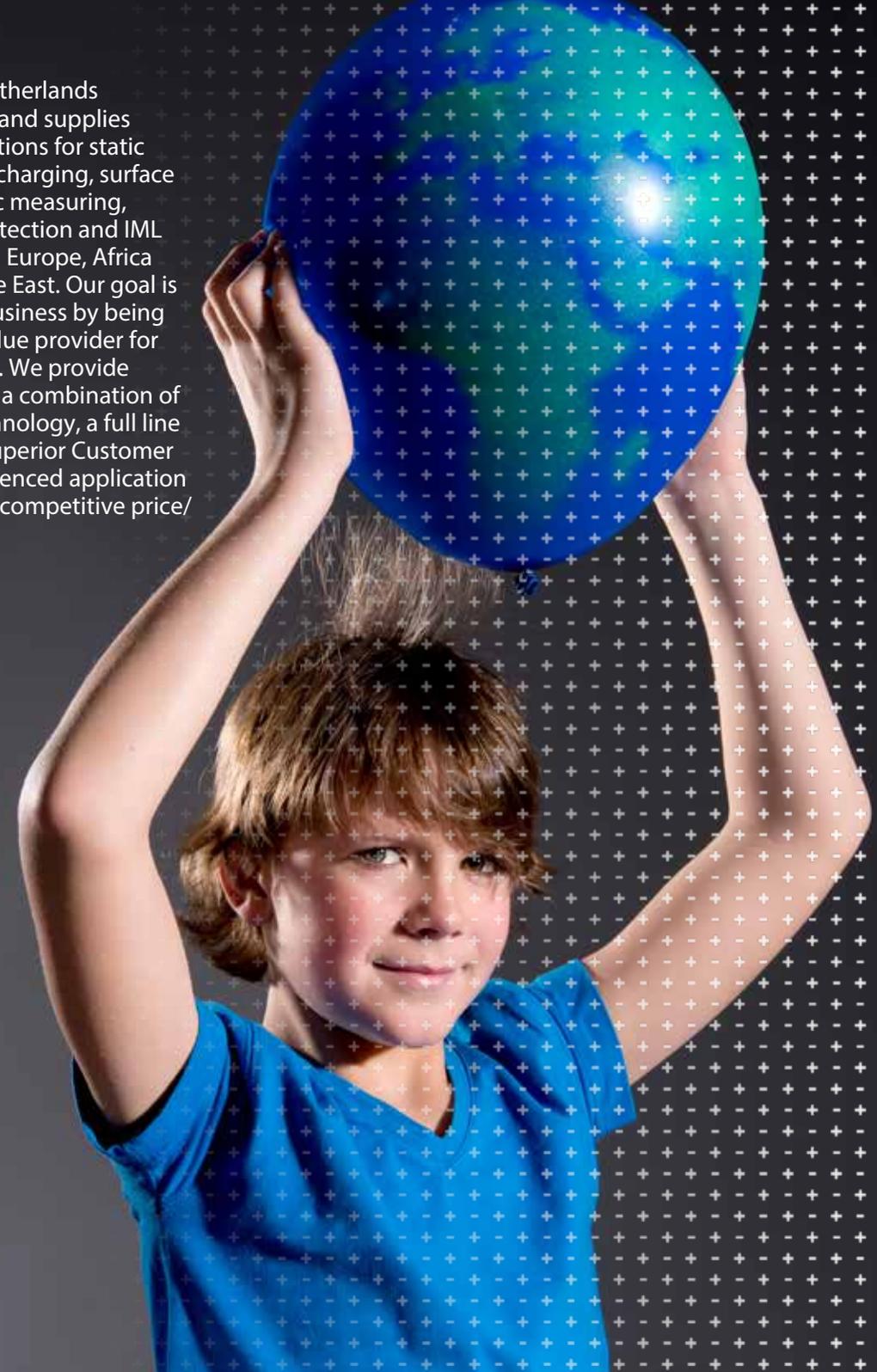
For more information  
scan the QR code



Simco-Ion video

## Mission

Simco-Ion® Netherlands manufactures and supplies complete solutions for static control, static charging, surface cleaning, static measuring, perforation detection and IML applications in Europe, Africa and the Middle East. Our goal is to grow our business by being the highest value provider for our customers. We provide value through a combination of advanced technology, a full line of products, superior Customer Service, experienced application support and a competitive price/value ratio.



# What can you expect from Simco-Ion?

**A solid advice:**  
 More than 60 employees in 35 countries across EMEA provide an enormous range and wealth of application knowledge to help you optimize your processes.



**01**

**An efficient solution for:**

- Neutralisation of static charge
- Application of static charge
- Surface cleaning
- Perforation detection
- Measuring static charge
- IML

**02**

**Service:**

- Customer service
- After sales support
- 4 year warranty
- International support



**03**

- Efficient
- Durable
- High quality
- 4 year warranty



**Contact**

How can we help you?  
 Please contact us:

**04** [www.simco-ion.co.uk/contact](http://www.simco-ion.co.uk/contact)

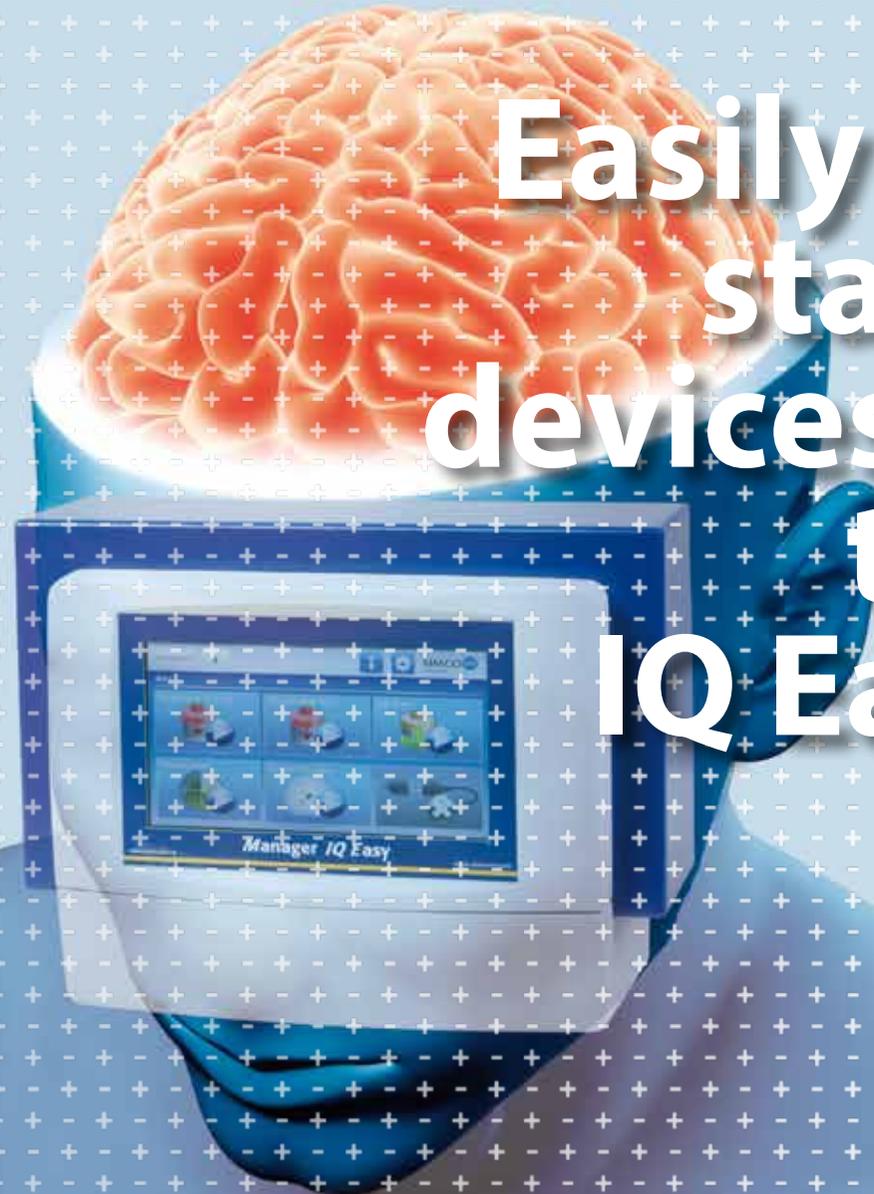
Explanation of symbols

- |   |   |   |   |
|---|---|---|---|
|   |   |   |   |
| Static Measuring  | IQ Easy platform  | Static Elimination  | Static Bonding  |
|  |  |  |  |
| Surface Cleaning  | Perforation Detection   | Pulsed DC ionisation  | AC ionisation   |
|  |  |  |  |
| 24V DC input voltage  | 4 year warranty   | Approved for use in certain explosion-hazardous environments                        | Universal mounting  |

# IQ Easy products



**Easily control all  
static control  
devices thanks to  
the unique  
IQ Easy system**



## Meet high demands with intelligent static control

Even very low static charges can cause a problem in processing film for high-tech products. Simco-Ion provides a solution to these challenges.

The demands from our customers are increasingly higher with regards to control and efficiency of anti-static equipment. Their end customer expects a very high quality product with very little, or no, static charge. These customers produce e.g. High quality film for electronics, medical applications or food packaging.

## How will Simco-Ion meet these demands?

Simco-Ion has recently introduced a completely new range of anti-static and static charging equipment that is capable of producing high efficiency ionisation to ensure optimal neutralisation called the IQ Easy platform. The heart of the system is the Manager IQ Easy which is a dedicated small industrial PC complete with touchscreen. The system enables communication between all connected devices. This means the operator has full control over the devices and can monitor and optimise all system and device parameters.



Manager IQ Easy

## What makes this system better?

Conventional anti-static equipment does a very good job up to a certain level. Optimal neutralisation results are dependent on a lot of external conditions. Mounting distance, web speed, thickness of the material, upstream static charge, optimum settings of the anti-static device, output voltage, frequency and ionisation balance.

The intelligent IQ easy devices take a lot of these factors into account and will provide optimum settings for the device to ensure maximum neutralisation efficiency.

## Automatic control

By adding a Sensor IQ Easy bar which measures the remaining static charge over the entire web, It becomes possible for the anti-static devices to read the measured data and to optimise the settings. This way the desired static level is reached. This closed loop feedback (CLFB) method provides outstanding results, even at very high web velocities. See the comparison between a standard anti-static bar and an anti-static bar controlled by CLFB.

## Which other functions does it provide to make the operators life easier?

A lot, here they are:

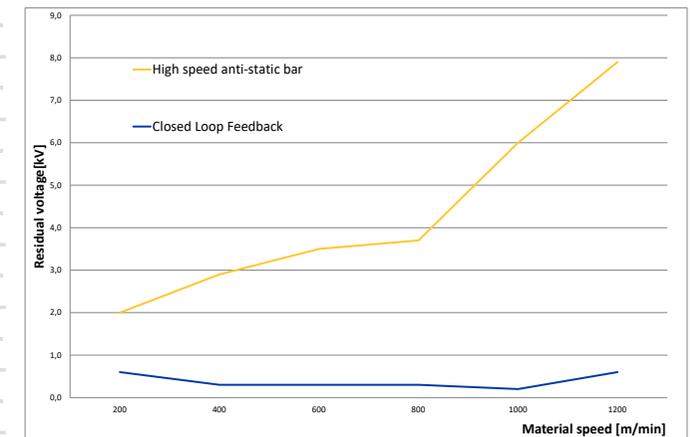
- + Cleaning indication
- + Efficiency indication
- + Colour coded system information
- + Data logging
- + Action logging
- + Plug and play
- + Universal mounting
- + No cable spaghetti
- + Upstream static level
- + Downstream static level (with Sensor IQ Easy)

Action logging gives information at a glance about events that have taken place, devices that have been set to standby, warnings and alarms. This enables easy fault finding.

Data logging is available for all devices. The data is stored in the manager and can be collected via the Ethernet port or USB.

## Your process completely under control! That gives peace of mind!

- + Quality assurance by measuring the static charges and data logging.
- + Optimal control over all the static charges provides dependability.
- + The lowest possible achievable residual charges allow you to meet the requirements of your end customer.
- + Warnings and alarms give advance information about possible breaches of critical process parameters. This allows you to take action in time before your process is disrupted.
- + Thanks to data logging and action logging you can trace where possible failures have occurred at any time.

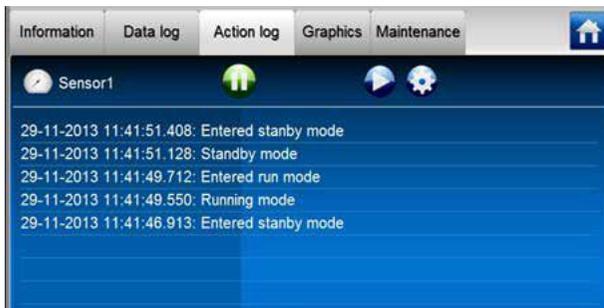




Information is colour coded

## What kind of interfaces are available?

- + Human interface via touchscreen
- + Standard analogue and digital I/O ports
- + Fieldbus
- + Ethernet
- + USB



Action logging

The IQ Easy platform makes it easy to control all Simco-Ion-devices in a production process. Independent of their function, whether it is an anti-static bar, charging generator, perforation detector or measuring device, they can all communicate with the Manager IQ Easy, the heart of the new IQ Easy platform. The IQ Easy system is unique because all devices form a system and not as before all operate separately. No need for additional cables and individual power supplies.



## Manager IQ Easy

The Manager IQ Easy makes it even more easier to control static electricity. The Manager IQ Easy is the heart of the new IQ Easy platform. It provides information from all the connected devices and makes it easy to change and monitor status and parameters. The 24V DC power distribution is routed via the Manager.

### Features:

- + 7" full colour touch screen
- + Information is colour coded
- + Controls up to 30 devices
- + Connection up to 6 devices
- + Analogue & digital inputs and outputs
- + Serial fieldbus interfaces
- + Ethernet interface
- + USB interface

Dimensions: Length 150 x Width 300 x Height 233 mm



## Extension IQ Easy

The IQ Easy platform with at least one Manager IQ Easy can be extended with the Extension IQ Easy to control an additional 6 devices.

### Features:

- + Connection of up to 6 devices
- + LED indicators
- + Maximum 4 Extensions per system

Dimensions: Length 150 x Width 300 x Height 233 mm



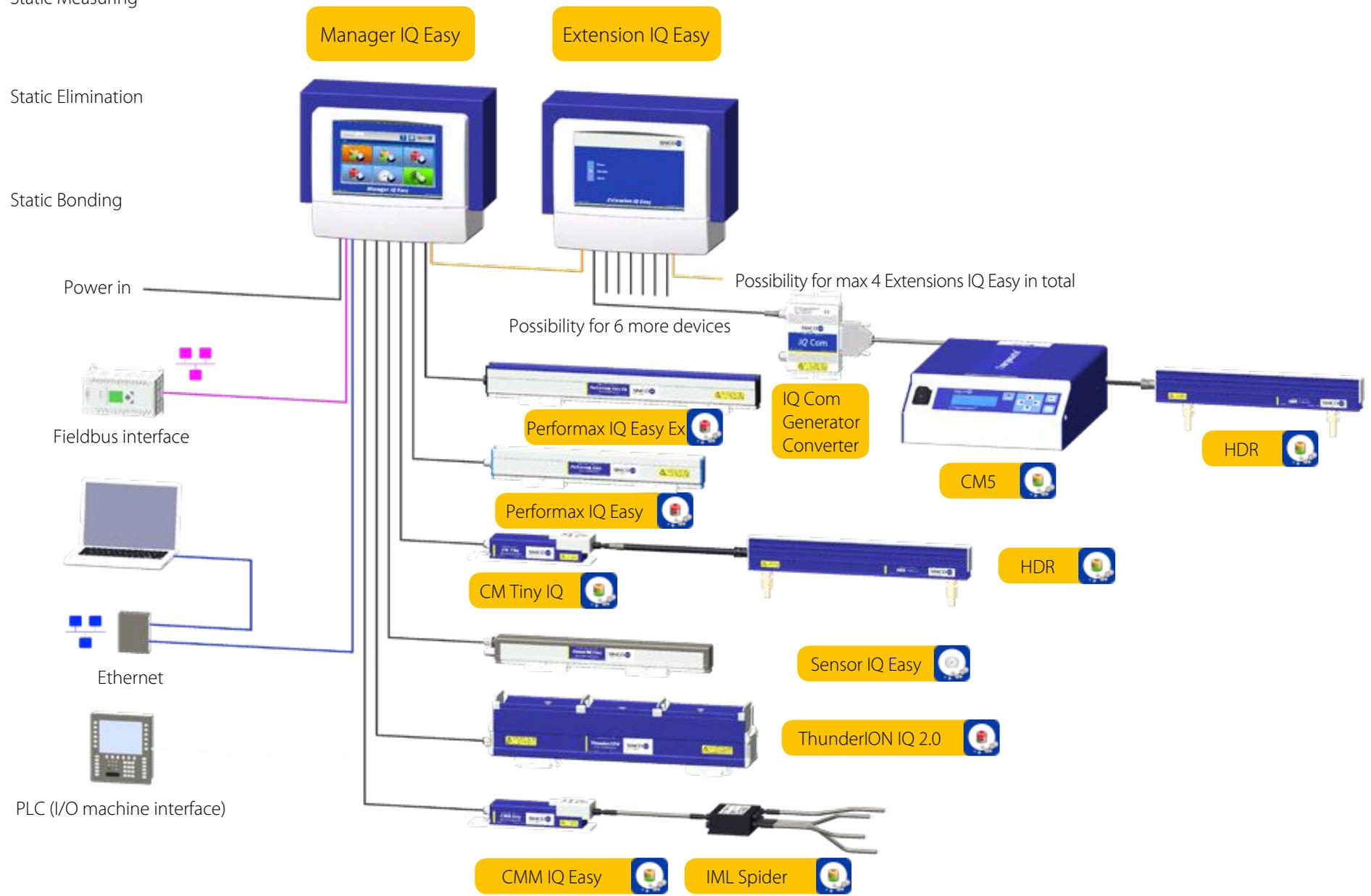
Static Measuring



Static Elimination



Static Bonding



# IQ Easy products

## IQ functionality

	Performax IQ Easy	Performax IQ Easy Ex	ThunderION IQ 2.0	CMM IQ Easy	CM Tiny IQ	Sensor IQ Easy
Efficiency indication	✓	✓	✓			
Clean bar warning	✓	✓	✓			
Ion balance setting	✓	✓	✓			
Data logging	✓	✓	✓	✓	✓	✓
Action logging	✓	✓	✓	✓	✓	✓
Remote control	✓	✓	✓	✓	✓	✓
Warning output	✓	✓	✓	✓	✓	✓
Alarm output	✓	✓	✓	✓	✓	✓
CLFB (with Sensor)	✓				✓	
Web voltage too high Warning						✓
Web voltage too high Alarm						✓
Web voltage too low Warning						✓
Web voltage to low Alarm						✓
Overload	✓	✓	✓	✓	✓	
Temperature too high Alarm	✓	✓	✓	✓	✓	✓
Ionisation current indication	✓	✓	✓	✓	✓	
Voltage control				✓	✓	
Current control					✓	
Voltage setpoint				✓	✓	
Current setpoint					✓	

# Static elimination



**For each process  
the perfect  
solution for static  
electricity control**

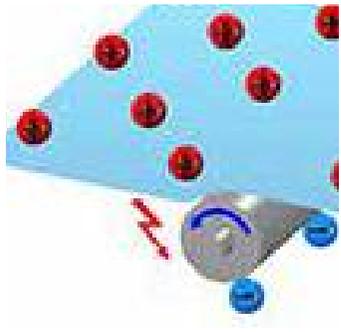
# Static elimination

## Static elimination

Static electricity can be troublesome in many production processes where non-conductive materials such as plastic, paper, wood and textile are processed.

## How do you know if in your situation static electricity plays a role?

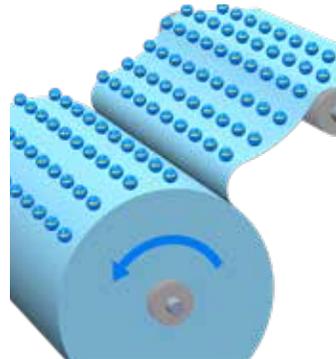
Most common problems are easy to recognise:



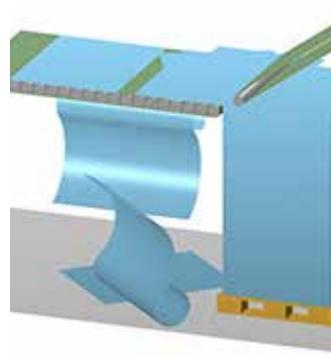
+ Sparks jump over



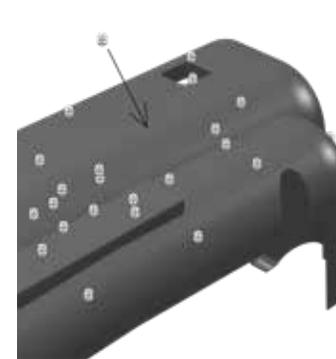
+ People get shocks



+ Materials cling together and are difficult to process



+ The process is disrupted



+ Your product attracts dust



+ Fire is caused

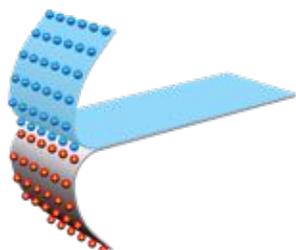
## What causes static charge?

Static charge is mainly caused by friction and separation of poorly conducting materials.

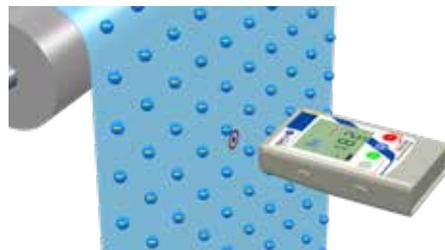
Static charge can be demonstrated by measuring with an electrostatic fieldmeter.

See the section measuring instruments for possibilities or get advice from a Simco-Ion representative.

Download our whitepaper "Static electricity" for more details: [www.simco-ion.co.uk/wp](http://www.simco-ion.co.uk/wp)



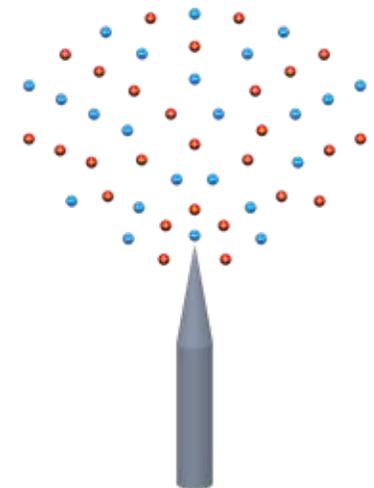
Generation of static charge



Measuring static charge

## Which method is the most effective to reduce static charge?

Non-conductive materials (insulators) cannot be discharged by grounding. The most effective and durable solution to reduce the static charge is by active ionisation. Active ionisation is created by the use of air ionisers. These generate large numbers of positive and negative ions in the surrounding atmosphere, which serve as mobile carriers of charges in the air. As ions flow through the air, they are attracted to oppositely charged particles and surfaces. Neutralization of charged surfaces is rapidly achieved through this process.



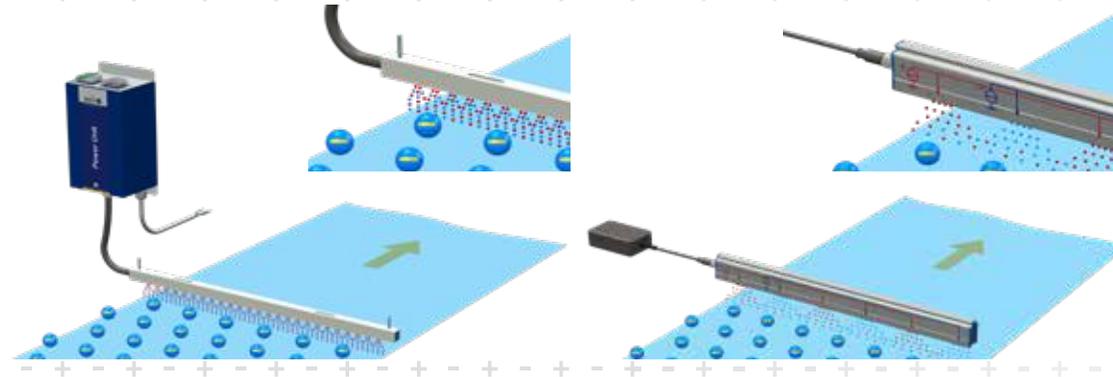
Ioniser

Download our whitepaper: "Understanding ionisation" for more information: [www.simco-ion.co.uk/wp](http://www.simco-ion.co.uk/wp)

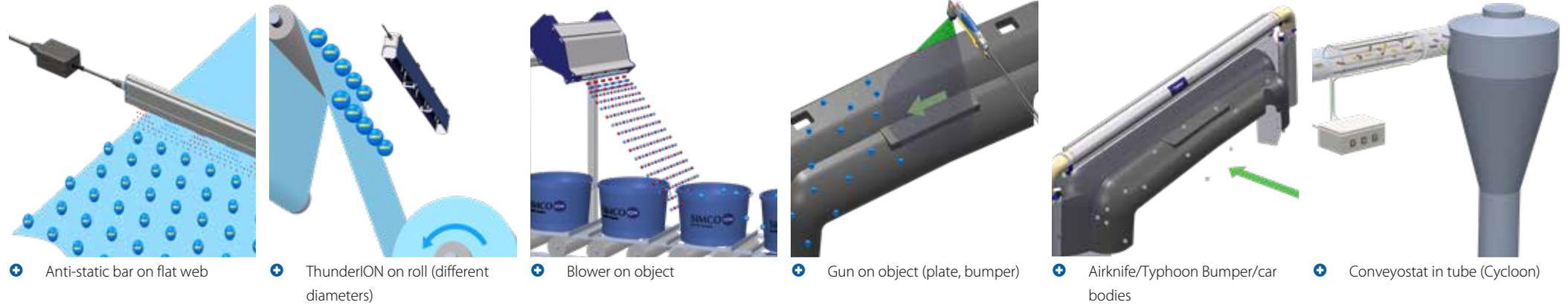
**What do ionisers look like and which one is right for my application?**

Ionisers are available in different sizes and shapes. The choice depends on the application and a number of distinguishing features:

- + Technology (external power supply , or integrated high voltage 24V)
- + Working distance
- + Material velocity
- + Object To be neutralised, 3D product or flat material web
- + Environmental conditions, temperature, humidity, Atex zone
- + Inspections



**Typical applications examples:**



+ Anti-static bar on flat web    + ThunderION on roll (different diameters)    + Blower on object    + Gun on object (plate, bumper)    + Airknife/Typhoon Bumper/car bodies    + Conveyostat in tube (Cyclon)

To facilitate the right choice, you can find the main features of the equipment for static elimination in the table on page 12.

- Various ionisers:
- Anti-static bars
  - Ionising airblowers
  - Typhoon
  - Ionising airguns
  - Ionising nozzles
  - Power Units
  - Inline ioniser

For an adequate and free of charge advice you can contact Simco-Ion our a representative in your region.

# Static elimination

## Static elimination products

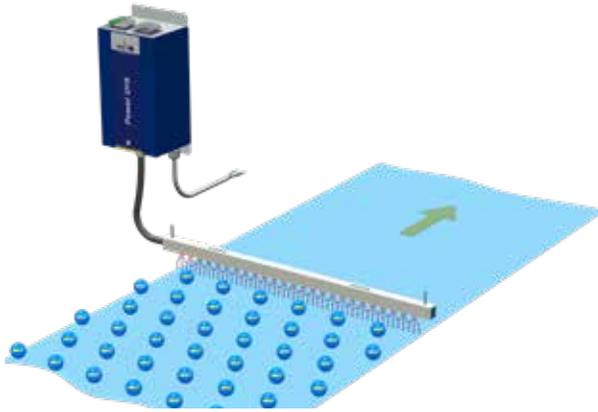
Product	Working distance (mm)					Atex	UL	Max T °C	Max speed m/min			24V	3D	High voltage	Cleaning	Hand operation	Conveying	Flat
	1	10	100	1000	10000				100	1000	2000							
Performax Easy	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
Performax Easy speed	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
Performax (IQ) Easy Ex	█	█	█	█	█	✓		40	█	█	█	█	█	█	█	█	█	█
Performax (IQ) Easy Ex Speed	█	█	█	█	█	✓		40	█	█	█	█	█	█	█	█	█	█
ThunderION 2.0 UL	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
ThunderION 2.0	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
Performax IQ Easy	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
Performax IQ Easy Speed	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
MEB	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
MEJ	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
1/2"SS	█	█	█	█	█		✓	55/150*	█	█	█	█	█	█	█	█	█	█
MaxION	█	█	█	█	█			70	█	█	█	█	█	█	█	█	█	█
EP-Sh-N	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
P-Sh-N	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
P-Sh-N-Ex	█	█	█	█	█	✓	✓	40	█	█	█	█	█	█	█	█	█	█
HP-N-Ex	█	█	█	█	█	✓		40	█	█	█	█	█	█	█	█	█	█
BlowION	█	█	█	█	█			50	█	█	█	█	█	█	█	█	█	█
Sentry	█	█	█	█	█			50	█	█	█	█	█	█	█	█	█	█
VolumION	█	█	█	█	█			50	█	█	█	█	█	█	█	█	█	█
Typhoon with EP-Sh-N	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
Typhoon with P-Sh-N-Ex	█	█	█	█	█	✓	✓	40	█	█	█	█	█	█	█	█	█	█
Typhoon with Performax (IQ) Easy Ex	█	█	█	█	█	✓		40	█	█	█	█	█	█	█	█	█	█
MEB with airknife	█	█	█	█	█		✓	55	█	█	█	█	█	█	█	█	█	█
Performax IQ Easy (Ex) with airknife	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
ES-2J	█	█	█	█	█			60	█	█	█	█	█	█	█	█	█	█
Cobra	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
Top Gun	█	█	█	█	█			40	█	█	█	█	█	█	█	█	█	█
Flat Nozzle	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
HE	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
BW	█	█	█	█	█			55	█	█	█	█	█	█	█	█	█	█
Conveyostat	█	█	█	█	█			50	█	█	█	█	█	█	█	█	█	█

\*with teflon cable

-  Technology 24V
-  3D
-  High voltage
-  Cleaning
-  Hand operation
-  Conveying
-  Flat

## What is the difference between ionisers?

### Anti-static bar with separate high voltage generator:



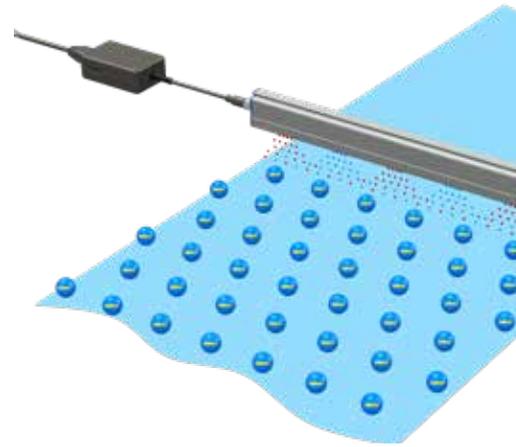
#### Advantages:

- ⊕ Anti-static bars are very compact
- ⊕ Up to 4 ionising devices can be connected to the power supply

#### Disadvantages:

- ⊕ Large power supply, takes a lot of space
- ⊕ Rigid high-voltage cable that has to be mounted correctly
- ⊕ Fixed connection of the high-voltage cable
- ⊕ Fixed length of the high-voltage cable, cannot be shortened
- ⊕ No indication of the operation
- ⊕ Proper power supply device and input power should be selected

### Anti-static bar with built-in high-voltage:



#### Advantages:

- ⊕ 24V DC input voltage
- ⊕ Small flexible cables
- ⊕ Cable can be constructed to length
- ⊕ Cable with M12 plug-in connector
- ⊕ Neutralisation at speeds of >500 m/min\*
- ⊕ Possible neutralisation at long distances >500 mm\*
- ⊕ Indication on the anti-static bar operation
- ⊕ IP66 for humid environments\*
- ⊕ Easy to clean due to closed profile
- ⊕ Warning signal at fault situations
- ⊕ Universal mounting
- ⊕ IQ version available with additional functionality:\*
  - ⊕ Efficiency indicator
  - ⊕ Cleaning indicator
  - ⊕ Closed loop feedback for control of the neutralisation
  - ⊕ Manual settings such as frequency and balance

\* Different per device, check the product specifications

### Universal mounting:



All 24V anti-static bars (marked with the symbol) are equipped with universal mounting brackets. These are equipped with a quick click system making mounting and disassembly very easy and quick.



### Performax IQ Easy

In combination with the Manager IQ Easy the Performax IQ Easy anti-static bar will ensure a very high efficiency of static neutralisation. Adding a Sensor IQ Easy to the system enhances the efficiency by measuring the downstream residual static charge and regulating the ionisation efficiency in real time to ensure a very low residual static charge.

**Features:**

- ⊕ Neutralisation at speeds of >500 m/min (speed version)
- ⊕ Closed-loop feedback ionisation in association with Sensor IQ Easy\*
- ⊕ Efficiency indication\*
- ⊕ Cleaning indication\*
- ⊕ Data logging\*
- ⊕ Minimal risk of deflection and deformation of the anti-static bar due to glassfiber reinforced plastic profile
- ⊕ Protection classification IP66
- ⊕ Universal mounting brackets
- ⊕ LED indicators

\*Only in system with Manager IQ Easy



### Performax Easy and Performax Easy speed

The Performax Easy is an anti-static bar which can be used for neutralisation of static charges also at high material velocities.

**Features:**

- ⊕ Incorporated high voltage power supply, input voltage 24V DC
- ⊕ Minimal risk of deflection and deformation of the anti-static bar due to glassfiber reinforced plastic profile
- ⊕ Standard M12 connector
- ⊕ Designed for industrial use and easy cleaning; (protection classification IP66)
- ⊕ Shockless touchable emitters
- ⊕ Universal mounting brackets

**Performax IQ Easy**

Dimensions: Length 360-4860 x Width 25,5 x Height 49,5 mm

**Performax Easy (Speed)**

Dimensions: Length 450-3870 x Width 24 x Height 38,5 mm



### Performax Easy Ex

The Performax Easy Ex is an anti-static bar which can be used for neutralisation of static charges in explosion hazardous environments.

**Features:**

- ⊕ Incorporated high voltage power supply, input voltage 24V DC
- ⊕ Minimal risk of deflection and deformation of the anti-static bar due to robust aluminium profile
- ⊕ Designed for industrial use and easy cleaning; (protection classification IP66)
- ⊕ Universal mounting brackets
- ⊕ No HV cable in Ex Area
- ⊕ Complies to the latest standards
- ⊕ IQ version available
- ⊕ LED
- ⊕ Atex II 2 GD  
EX mb IIB T4 Gb  
EX mb IIB T135 °C Db

Dimensions: Length 270-2970 X Width 30 x Height 52 mm



### ThunderION 2.0

With certain production processes it's necessary to ionise at such a long distance where classical AC anti-static bars aren't sufficient enough, for example winding and rewinding of webs where the diameter of the re-winding section changes continuously. The ThunderION 2.0 anti-static bar offers long distance static elimination even up to one meter. End brackets, middle support brackets, side plates and emitters can be easily removed to gain access to the whole surface for fast and accurate cleaning.

**Features:**

- + Long working distance: 300-1000 mm
- + Incorporated high voltage power supply, input voltage 24V DC
- + Shockless touchable emitters
- + Easy to clean
- + Visual indications with multicolour LED's on 3 sides
- + Universal mounting brackets
- + Patented technology
- + IQ version available with f.e. frequency setting, balance setting in association with Manager IQ Easy

Dimensions: Length 375-4750 x Width 66 x Height 113 mm



### ThunderION 2.0 UL

The ThunderION 2.0 UL has the same specifications as the ThunderION 2.0 and additional UL certification and Teflon emitter holders.

**Features:**

- + Long working distance: 300-1000 mm
- + Incorporated high voltage power supply, input voltage 24V DC
- + Shockless touchable emitters
- + Easy to clean
- + Teflon emitter holders
- + Visual indications with multicolour LED's on 3 sides
- + Universal mounting brackets
- + Patented technology
- + IQ version available with f.e. frequency setting, balance setting in association with Manager IQ Easy

Dimensions: Length 570-5320 x Width 66 x Height 114 mm



### MEB

The MEB is an anti-static bar which is often used on production machines where short range ionisation is needed and where no moving machine parts are interfering the ionisation.

**Features:**

- + Short working distance: 30 mm
- + Shockless touchable emitters
- + The bar continues to function properly when a number of emitter pins are short-circuited, for instance due to heavy fouling.
- + Compact
- + Complementary equipment: A2A7S/MPM

Dimensions: Length 90-5770 x Width 17 x Height 20 mm



## MEJ

The MEJ is a round anti-static bar which can therefore be easily mounted via holes in the machine frame. The MEJ is often used on production machines where short range ionisation is needed and where no moving machine parts are interfering the ionisation.

### Features:

- Short working distance: 30 mm
- Shockless touchable emitters
- The bar continues to function properly when a number of emitter pins are short-circuited, for instance due to heavy fouling.
- Round bar, can be easily mounted via holes in the machine frame

Dimensions: Length 90-5770 x ø18 mm



## SS 1/2"

The SS 1/2" is an anti-static bar which neutralises static charge at a short distance. This anti-static bar is suited for being installed in places which may be subject to heavy fouling. Because this anti-static bar can cause a unpleasant electrical shock, these bars are usually installed in such a manner that the emitter pins cannot be touched by personnel.

### Features:

- Short working distance: 30 mm max.
- Optimal neutralisation because the emitter pins are directly coupled to the high voltage
- Is suited for being installed in places which may be subject to heavy fouling
- Non-touch-safe emitters
- Heat and chemical resistant
- Compact

Dimensions: Length 62,5-4650 x Width 13,5 x Height 16,5 mm



## MaxION

The MaxION is an anti-static bar which neutralises static charge at a medium distance.

### Features:

- Medium working distance: 400 mm max.
- Minimal risk of deflection and deformation of the anti-static bar due to glassfiber reinforced plastic profile
- Shockless touchable emitters
- Compact

Dimensions: Length 120-5900 x Width 16 x Height 22 mm



### EP-Sh-N

The EP-Sh-N is an anti-static bar which neutralises static charges at medium distance, till 150 mm.

**Features:**

- ⊕ Medium working distance: 150 mm max.
- ⊕ Shockless touchable emitters
- ⊕ The bar continues to function properly when a number of emitter pins are short-circuited, for instance due to heavy fouling.

Dimensions: Length 150-5826 x Width 41 x Height 20 mm



### P-Sh-N

The P-Sh-N anti-static bar is a more powerful version of the EP-Sh-N. With its long range, the P-Sh-N is ideal for neutralisation of static electricity on materials when the distance varies. Under certain conditions the maximum distance may even be as large as 600 mm.

**Features:**

- ⊕ Long working distance: 600 mm max.
- ⊕ Shockless touchable emitters
- ⊕ The bar continues to function properly when a number of emitter pins are short-circuited, for instance due to heavy fouling.
- ⊕ Ideal for neutralisation of static electricity on materials when the distance varies.

Dimensions: Length 150-5826 x Width 66 x Height 20 mm



### P-Sh-N-Ex

The P-Sh-N-Ex has been approved for neutralisation of static electricity in certain explosion hazardous environments. The P-Sh-N-Ex is equipped with an integrated power unit, you do not need a high-voltage cable.

**Features:**

- ⊕ Short working distance: 200 mm max.
- ⊕ Shockless touchable emitters
- ⊕ The bar continues to function properly when a number of emitter pins are short-circuited, for instance due to heavy fouling.
- ⊕ Ideal for neutralisation of static electricity on materials when the distance varies.
- ⊕ Approved for use in certain explosion hazardous environments

Dimensions: Length 237-5856 x Width 75 x Height 95 mm



## HP-N-Ex

The HP-N-Ex ionisation blower has been approved for use in certain explosion hazardous environments.

### Features:

- Working distance: 1500 mm max.
- Working width: 500 mm
- Approved for use in certain hazardous environments
- Integrated power unit

Dimensions: Length 452 x Width 561 x Height 251 mm



## BlowION

The BlowION ionising airblower makes it possible to clean contaminated products and to neutralise static charges at distance on a large surface.

### Features:

- Working distance: 1000 mm max.
- Working width: 520 - 1960 mm
- Integrated power unit
- Plug and Play
- Makes it possible to neutralise at distance on a large surface
- The emitter pins are kept in optimum condition by the built-in cleaning brush

Dimensions: Length 520-1960 x Width 320 x Height 158 mm



## Sentry

The Sentry ionising air blower stands out for its compact design.

### Features:

- Working distance: 1000 mm max.
- Working width: 500 mm
- Integrated power unit
- The emitter pins are kept in optimum condition by a (patented) cleaning system

Dimensions: Length 500 x Width 240 x Height 190 mm



**VolumION**

The VolumION ionising airblower makes it possible to clean contaminated products and to neutralise static charges at long distance. Ambient air is drawn on two sides and blown off along three anti-static bars.

**Features:**

- + Working distance: 1500 mm max.
- + Working width: 500 mm
- + Ideal for long range neutralising when paper and film webs are being wound
- + Built-in shockless anti-static bars
- + The air inlets can be fitted with a special filter

Dimensions: Length 500 x Width 296 x Height 235 mm



**MEB anti-static bar with airknife**

The airknife with MEB anti-static bar is used where one wants to simultaneously neutralise static charges and wants to remove dust.

**Features:**

- + Working distance: 1000 mm max.
- + Removes dust and other contaminations and neutralises the static charge and prevents retraction contaminants
- + Shockless touchable emitters

Dimensions: Length 120-1890 x Width 54 x Height 52 mm



**Performax IQ Easy anti-static bar with airknife**

The Airknife with Performax IQ Easy is especially useful for situations where the ionisation or cleaning needs to be mobile s.a. cleaning parts with a robot. With the 24V connection it is easy to install in such applications.

**Features:**

- + Working distance: 3000 mm max
- + Removes dust and other contaminations and neutralises the static charge and prevents retraction contaminants
- + Installation possible on moving machine parts such as a robot arm
- + Shockless touchable emitters

Dimensions: Length 300-4980 x Width 50 x Height 63,5 mm



### Flat nozzle

The Flat Nozzle ionising air nozzle is especially suitable for neutralising static charges at the feeding and delivery sections of machines in the printing industry.

**Features:**

- ⊕ Working distance: 50-300 mm
- ⊕ Air consumption: 5 Nm<sup>3</sup>/h using 1 bar
- ⊕ Max. pressure: 6 bar
- ⊕ Shockless touchable emitters

Dimensions: Length 155 x Width 47 x Height 37 mm



### HE

The HE ionising air nozzles have a high blow-off force at a relatively low air consumption.

**Features:**

- ⊕ Working distance: 250 mm max.
- ⊕ Air consumption: 3,5 Nm<sup>3</sup>/h using 1 bar
- ⊕ Max. pressure: 7 bar
- ⊕ Shockless touchable emitters
- ⊕ Being installed outside the air flow, the emitter pins are hardly subject to fouling, if at all
- ⊕ Can be fitted on a standard air header
- ⊕ Click system for easy assembly

Dimensions: Ø 24 x Height 68,5 mm



### BW

The BW ionising air nozzle has been designed especially for neutralising and cleaning (small) bottles on the inside.

**Features:**

- ⊕ Working distance: 150 mm max.
- ⊕ Air consumption with 1/4" tube: 4 Nm<sup>3</sup>/h using 1 bar
- ⊕ Air consumption with 3/8" tube: 8,5 Nm<sup>3</sup>/h using 1 bar
- ⊕ Max. pressure: 6 bar
- ⊕ Shockless touchable emitter
- ⊕ Especially designed for neutralising and cleaning (small) bottles on the inside

Dimensions: Length 185-985 x Width 38 x Height 22,5 mm



### Control Module ThunderION

The Control Module provides power and control for up to 4 ThunderION anti-static bars.

**Features:**

- + Provides power for up to 4 ThunderION anti-static bars
- + Controls the operation for up to 4 ThunderION anti-static bars by means of LED signalling
- + Quick assembly

Dimensions: Length 330 x Width 125 x Height 98 mm



### Power Unit A2A7S

The A Unit is a power unit on which 4 ionisers can be connected as a maximum.

**Features:**

- + Provides high-voltage to 4 ionisers as a maximum
- + Equipped with an on/off switch with an indicator lamp
- + Equipped with a high-voltage indicator lamp
- + UL approved

**Different options possible:**

- + High-voltage control; switch contact is available on the I/O connector
- + Remote control; switch on or off by a remote contact
- + Possibility to switch off the power unit at a preset drop in high-voltage output

**Variations of the Power Unit:**

- + A2A3S: For ionising air nozzle type BW.
- + A2A4S: For anti-static bars operating on 4 kV.
- + A2A5G: For ionising air gun type Cobra.
- + A2A5S: For anti-static bar type MaxION.
- + A2A7S: For anti-static bars operating on 7 kV.

Dimensions: Length 240 x Width 125 x Height 98 mm



### MPM

The MPM is a power unit on which 4 ionisers can be connected as a maximum.

**Features:**

- + Provides high-voltage to 4 ionisers as a maximum
- + A wide range of input voltages and frequency
- + LED signalling
- + UL approved

**Different options possible:**

- + Ion Balance control
- + High-voltage control; switch contact is available on the I/O connector
- + Remote control; switch on or off by a remote contact
- + Master Slave; Two MPM units can be interconnected for high speed applications s.a. Conveyostat®
- + Overload detection; A switch contact is available on the I/O connector
- + 24 V DC power output on I/O connector

Dimensions: Length 240 x Width 125 x Height 98 mm



## Conveyostat®

The tube diameter is adjusted to the existing tube system. And so is the number of integrated anti-static bars, based on the diameter. Simco-Ion anti-static bars can also be integrated in a tube provided by the client. The anti-static bars are arranged in two series. They are connected to a two-phase power unit to ensure optimal ionisation at high velocities.

### Features:

- ⊕ Custom size pipe
- ⊕ Optimal ionisation at high velocities
- ⊕ Can be integrated in a tube provided by the client

### Different types on request:

- ⊕ Conveyostat® for outdoor applications
- ⊕ Conveyostat® with flange connections
- ⊕ Conveyostat® for use in hazardous areas

Dimensions: Length 700 x Ø 50-300 mm



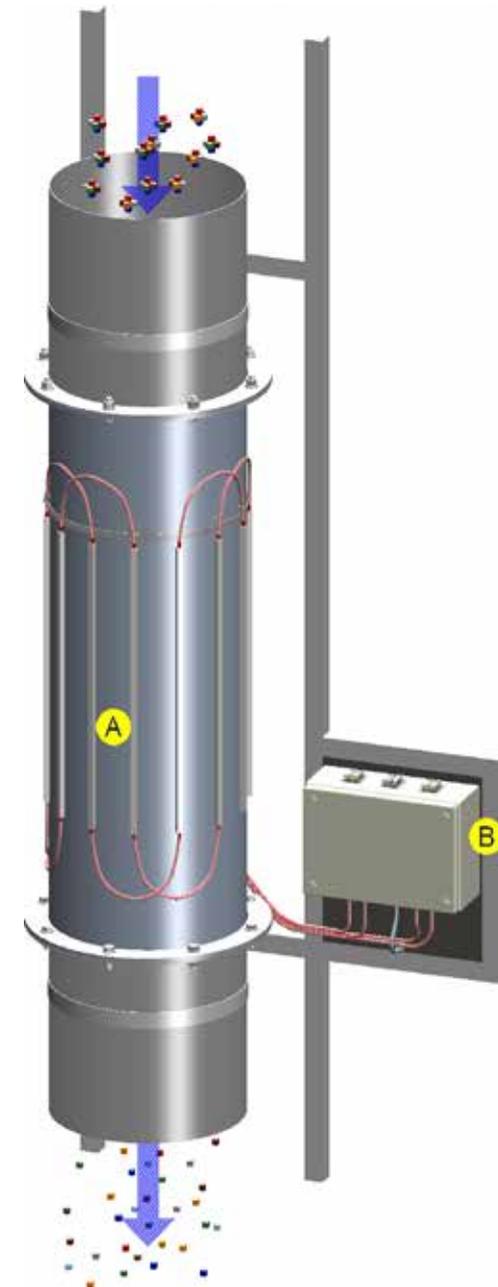
## LB2A4S

The LB Unit power unit ensures that the two connected anti-static bars (series) neutralise static charges optimal even at very high velocities.

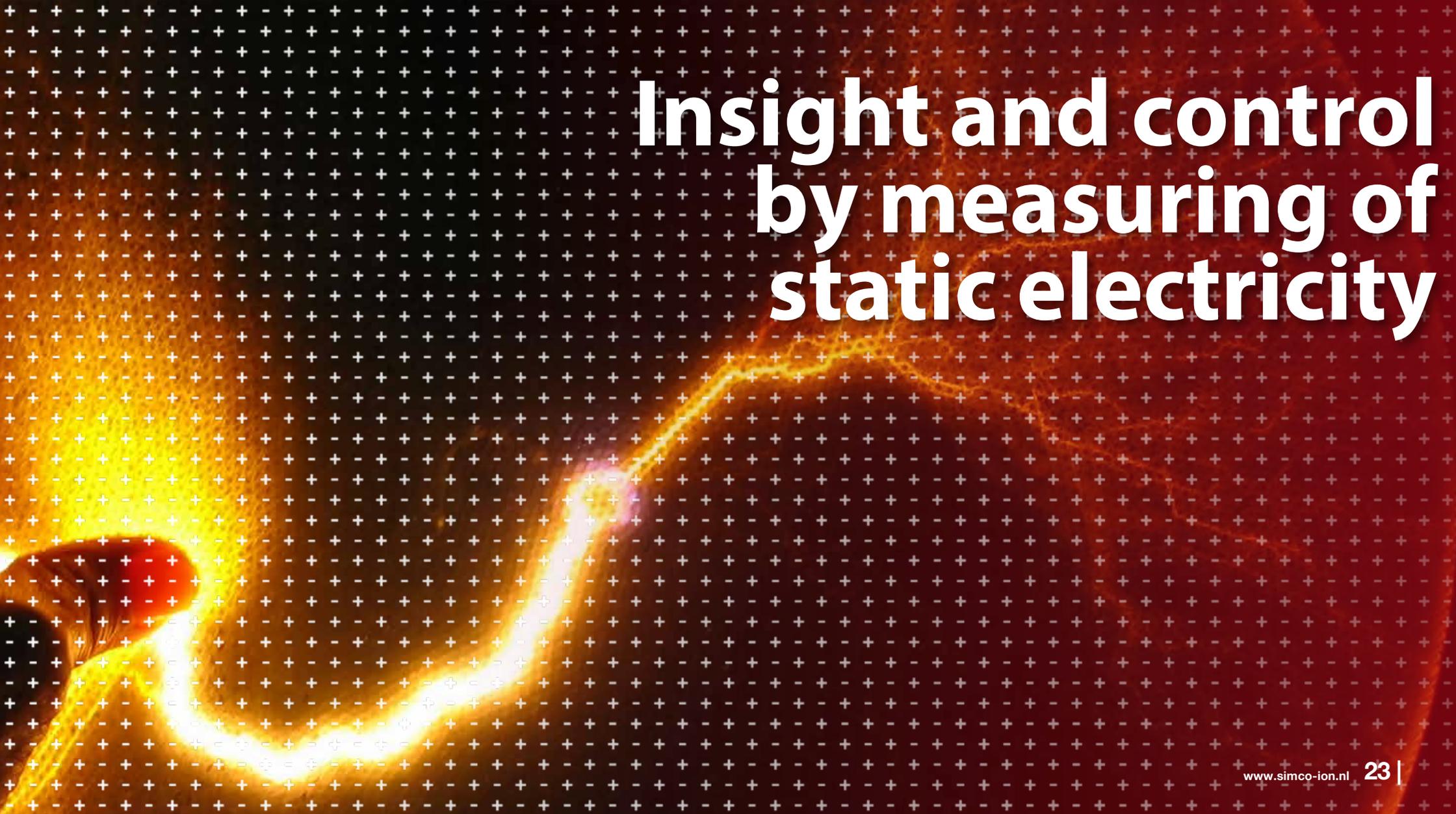
### Features:

- ⊕ Suitable for very high production velocities
- ⊕ Fitted with two high-voltage indicators
- ⊕ Fitted with an on/off switch with an indicator lamp

Dimensions: Length 300 x Width 200 x Height 120 mm



# Measuring instruments



**Insight and control  
by measuring of  
static electricity**

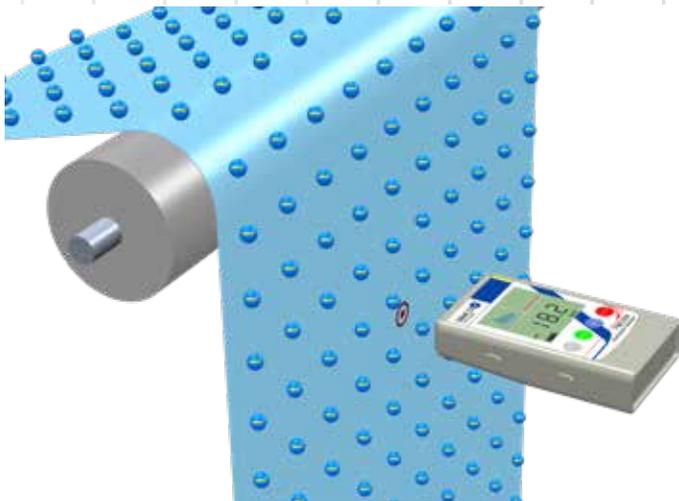
## Measuring instruments

If you are dealing with static charge, then there is usually a need to know how high that charge is and which polarity it has.

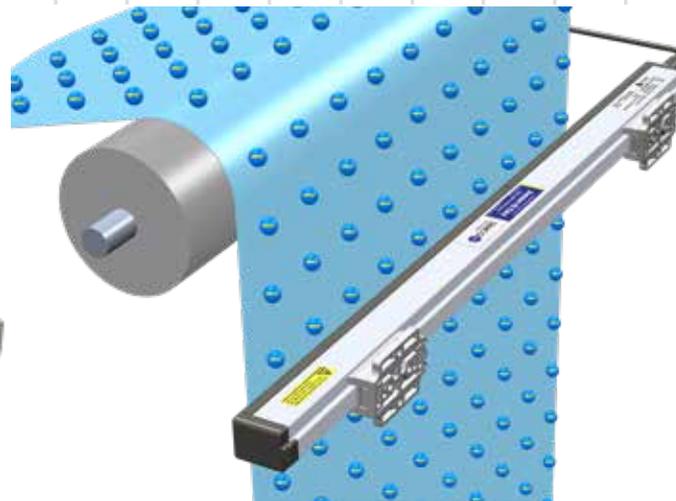
Measuring instruments can help you to make the invisible phenomenon static charge visible.

### When is it useful to measure static charge?

- ⊕ For locating the source of static charge
- ⊕ After a neutralisation system to measure the effectiveness or to actively control the ionisation
- ⊕ As quality control to give a guarantee to your customer
- ⊕ As control after a static charger



FMX-004



Sensor IQ Easy

### How can you measure static charge?

There are 2 ways:

- ⊕ Manually with a static locator FMX-004
- ⊕ Automatic with the Sensor IQ Easy





# Static bonding



**Use the invisible  
power of static  
charge to improve  
your process**

## Static bonding

The unpleasant effects of static electricity are well known. People get shocks, materials cling together, a spark damages materials or even causes a fire. A electrostatic charge can also be very useful! Materials can be charged deliberately to make them bond temporarily. Static charge can be an invisible helping hand in your production process. This method is already used in many processes in various industries.

### Some examples are:

- + Block a stack of paper or magazines to prevent shifting during transport or packaging.
- + Fix an address label to a brochure before the brochure is packed in a wrapping film.
- + Bond a part of a multilayer film to prevent air entrapment.
- + Bond a small section of a film during winding on a roll to prevent the roll from telescoping.
- + IML; The pre-printed label is positioned into the injection mould and kept in place by a static charge. This way the label will be moulded together with the product shape and come out as a finished product.

## Do any ideas spring to mind on how to use a static charge in your production process?

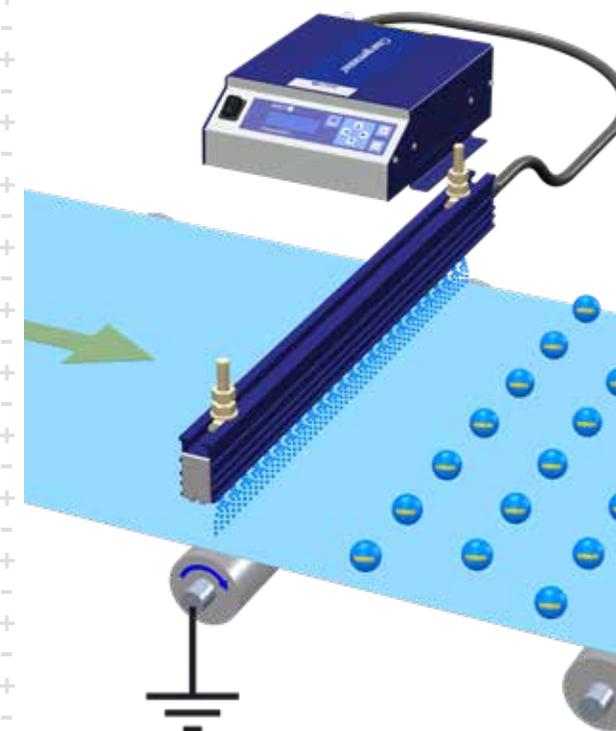
SIMCO (Nederland) B.V. has outstanding capabilities to develop ideas and implement solutions with static electricity that can simplify and optimise your process. A broad range of products are capable of performing tasks that go beyond your imagination.

### How?

A static charging system consist of a high voltage generator and an electrode. The high voltage generator supplies the high voltage needed to create a static charge. This can vary from 3 to 60 kVolts. The charging electrode comes in different shapes to enable an optimum result for each specific application.

To assess the possibilities in your production process you can contact Simco-Ion or a local representative.

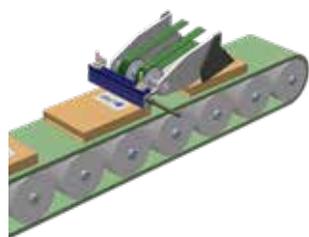
More information: [www.simco-ion.co.uk/contact](http://www.simco-ion.co.uk/contact)



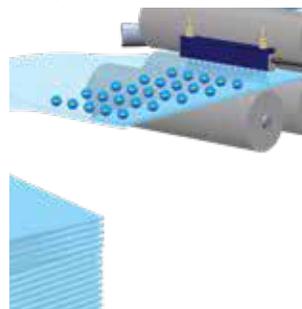
Download the whitepaper: "Charging techniques" [www.simco-ion.co.uk/wp](http://www.simco-ion.co.uk/wp)



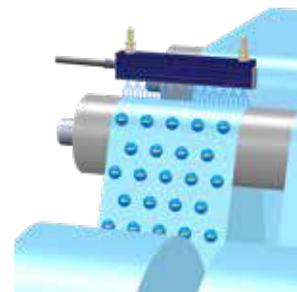
+ Making a stack static



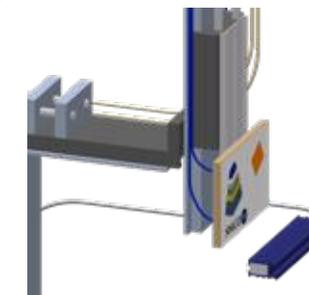
+ Fix an address label to a brochure



+ Prevent air inclusion



+ Prevent the roll from telescoping



+ IML



### CM Tiny

The CM Tiny is the smallest industrial charging generator and has a output voltage of 0 - 20 kV (negative).

Features:

- + Output voltage of 0 - 20 kV (negative)
- + For small machines and applications with moving parts (s.a. pick and place handling systems)
- + Compact and robust, capable of withstanding G-forces
- + No high voltage cable running through the cable channel
- + Smallest charging generator
- + Incorporated high voltage power supply, input voltage 24V DC
- + Only weighs 500 grams
- + HV OK signal
- + Detachable high voltage distribution block
- + LED's on both sides
- + Microprocessor controlled
- + External Setpoint control
- + Remote on/off signal
- + IQ version available

Dimensions: Length 212 x Width 45 x Height 43 mm



### CM lite

The CM lite is a compact high voltage supply with an adjustable output voltage of 0 – 20 kV (with a maximum current of 0,7 mA)

Features:

- + Output voltage of 0 – 20 kV
- + Available with a positive or negative output voltage
- + Remote control is possible
- + A warning lamp lights up if the system is overloaded or in the event of spark-over
- + 180 ° reversible control panel equipped with membrane switches

Dimensions: Length 290 x Width 164 x Height 106 mm



### CM5

The CM5 high voltage generator is available in two variants, the CM5-30 with an output voltage of 0-30 kV DC and the CM5-60 with an output voltage of 0-60 kV DC.

Features:

- + Output voltage of 0-30 kV DC (CM5-30)
- + Output voltage of 0-60 kV DC (CM5-60)
- + Available with a positive or negative output voltage
- + Voltage Control and Current Control
- + Password protected menu, lockable keyboard
- + 4 line LCD display with dual instructions (text + symbols)
- + Analogue remote control functions and signals
- + Quick setup
- + Advanced Current Control (patented)
- + Advanced Output Control
- + Serial bus interface optional
- + 180 ° reversible control panel equipped with membrane switches

CM5-30

Dimensions: Length 340 x Width 272 x Height 106 mm

CM5-60

Dimensions: Length 388 x Width 272 x Height 106 mm



### HDC and HDR

The HDC and HDR are rugged charging bars used in a variety of industrial applications.

#### Features HDC:

- + Charging bar
- + Working distance: 20 mm using <30 kV, 75 mm using 30-60 kV
- + Suitable for a variety of industrial applications
- + At an unforeseen spark it doesn't create an interruption in the machine control

#### Features HDR:

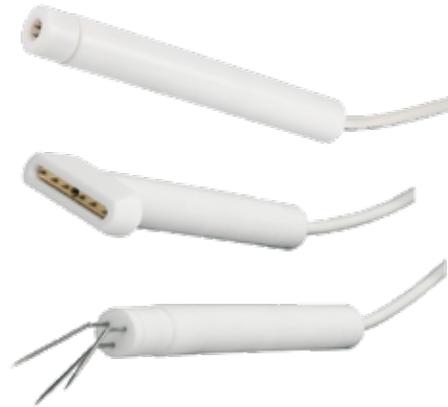
- + Charging bar
- + Working distance: 20 mm using <30 kV, 75 mm using 30-60 kV
- + Suits high velocity applications
- + Chance of spark-over is strongly reduced

#### HDC

Dimensions: Length 87,5-4675 x Width 30 x Height 53 mm

#### HDR

Dimensions: Length 87,5-4675 x Width 30 x Height 53 mm



### Pinner serie

Specifically for spotcharging small surfaces Simco-Ion offers various electrodes, including the 5 Point, Linear 6 Point and the Pinner Claw. Herewith small surfaces can be charged. They are also ideal for edge charging in cast-film extrusion processes. The material applied permits high temperature use. The electrodes are resistor-protected to avoid spark-over. The emitter pins are replaceable.

#### Features 5 Point:

- + Charging electrode
- + Working distance: min. 12,5 mm
- + Number of emitter pins: 5

#### Features Linear 6 Point:

- + Charging electrode
- + Working distance: min. 12,5 mm
- + Number of emitter pins: 6

#### Features Pinner Claw:

- + Charging electrode
- + Working distance: min. 12,5 mm
- + Number of emitter pins: 3

5 Point  
Dimensions: Length 166 x Ø 20 mm

Linear 6 Point  
Dimensions: Length 166 x Ø 20 mm

Pinner Claw  
Dimensions:  
Length 158 x Height 35 x Ø 20 mm



### IQ Com Generator Converter

The IQ Com Generator converter makes it possible to connect any existing CM5 charging generator to the Manager IQ Easy or Extension IQ Easy. Therethrough it is possible to pair the CM5 with a Sensor IQ Easy to enable Closed Loop Feedback charging.

#### Features:

Thanks to the IQ Com generator Converter it is possible to connect a CM5 to an IQ Easy system, which has many advantages:

- + Production failures and production stops will be reduced
- + Quality assurance: you can find back all data and action logs
- + You will get a warning when there is something wrong with a device so that you can intervene on time. The warnings and alarms will give you the chance to plan the maintenance or replacing of equipment before full break down. So no surprise machine stops due to defective static control equipment anymore!
- + When the CM5 is connected to the IQ Com, the CM5 can be operated from the Manager IQ Easy.
- + CLFB (Closed Loop FeedBack) mode operation; when using CLFB mode, the IQ Com must be paired with a Sensor IQ Easy bar. The Sensor IQ Easy bar will measure the static charge on the web and the generator output voltage will adapt constantly so that the static charge stays constant at the desired level.

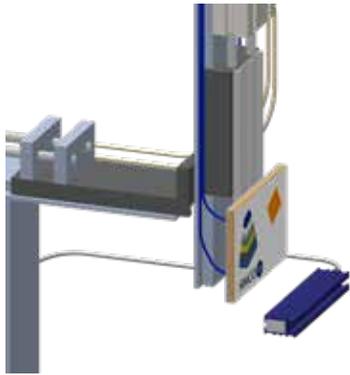
IML



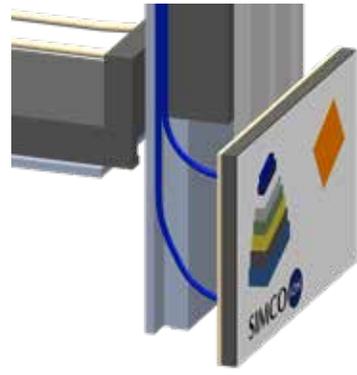
**A wide range of  
innovative products  
can help you to  
optimise the  
IML process**

## IML, In Mould Labelling, is indispensable in the production of injection moulded products.

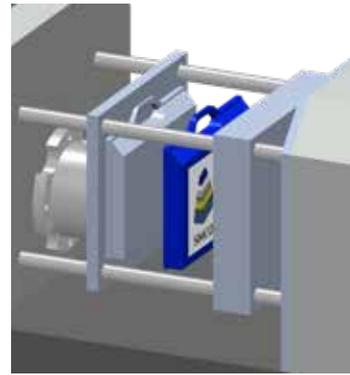
A perfect example is packaging of food products and many plastic products for domestic use. Many products are produced with the aid of a static charge. Instead of printing directly or placing a sticky label onto the product, the print is achieved with a pre-printed plastic label. The pre-printed label is positioned into the injection mould and kept in place by a static charge. This way the label will be moulded together with the product shape and come out as a finished product.



Electrode with IML foam simplified



Electrode with Easycore



Injection moulding process



Final product

### How does IML work?

IML is a process step in the injection moulding process. By a robot, a label is picked up and placed in the mould cavity where it sticks due to the electrostatic charging. After the closing of the mould cavity, the product can be moulded whereby the label is fused with the end product.

### What is necessary for applying IML?

- ⊕ A suitable printed label
- ⊕ A core with IML electrodes
- ⊕ A charging generator
- ⊕ A robot or handling

### IML electrodes

Depending on the geometry of the product and the desired cycle time, there are various methods with associated electrodes to apply.

### Construction

- ⊕ Emitter pins in the core, for example IML spider
- ⊕ Constructed core with IML foam
- ⊕ Constructed core with IML Easycore
- ⊕ Constructed core with IML foam simplified with external charging electrode
- ⊕ Constructed core with IML Easycore simplified with external charging electrode

### How can Simco-Ion help you?

Simco-Ion has years of experience with the IML process and has therefore developed special charging generators, IML electrodes and IML electrode materials and charging techniques.

A wide range of innovative products can help you to optimise the IML process. Simco-Ion or a local representative can assist you with advice and knowledge to realise your project.

For more contact data, go to: [www.simco-ion.co.uk/contact](http://www.simco-ion.co.uk/contact)



### IML Easycore

With the IML Easycore 2 component resin very complex and small cores can be constructed. All mechanical operations s.a. drilling, grinding, milling etc. are possible to make the core to the perfect shape and size.

**Features:**

- + 2 component resin for construction of IML cores
- + Even very complex and small cores can be constructed
- + Comes in duo-packs consisting of the resin and the correct amount of hardener
- + Available in 250 and 500 g



### IML Spider

The IML Spider consists of a IML Spider block with built-in resistors and the possibility to connect up to 8 flexible charging electrodes. The IML Spider can be used for IML applications in conjunction with IML generators with a maximum output of 20 kV.

**Features:**

- + IML Spider block with 8 positions
- + Each output limited with a resistor
- + Quick connect cables and electrodes
- + Daisy chain possible
- + Electrodes custom sizes
- + Unlimited combinations with all IML generators
- + Also available as Junction Block without resistors

Dimensions: Length 80 x Width 100 x Height 31 mm



### CMME

The CMME charging generator is specially designed for IML applications, where it can be mounted at the end of a robot arm. Thanks to the patented cycle OK function you can reduce the charging time drastically and thus the total cycle time of the injection moulding process.

**Features:**

- + Output voltage of 0 - 20 kV
- + For IML applications
- + Positioning at the robot arm in IML applications
- + Compact and robust, capable of withstanding G-forces
- + No high voltage cable running through the cable channel
- + Drastically reduced charging time and thus the total cycle time of the injection moulding process
- + Incorporated high voltage power supply, input voltage 24V DC
- + Only weighs 340 grams
- + Detachable high voltage distribution block
- + LED's on both sides
- + Microprocessor controlled
- + External Setpoint control
- + Remote on/off signal
- + IQ version available

Dimensions: Length 200 x Width 45 x Height 43 mm

# Surface cleaning



**A clean surface is essential for your production process**

## Surface cleaning

A clean surface of the product produced by you is often necessary to make the product suitable for the application of your customer. Slitting, sheeting, bag making, injection moulding and other production processes of paper, film, and plastic materials create or attract particles that contaminate the product. Transporting the product through the production process causes contact and separation of the product with the machine part generating static electricity that results in an electrostatic adhesion bonding contaminants to the surface. The faster you try to operate the more complicated these problems described above become. Contaminated surfaces cause defects in printing, coating uniformity, laminating, etc. resulting in quality problems, costly rejects, and ultimately dissatisfied customers.

## Solution

Simco-Ion offers a wide variety of surface cleaning equipment. All systems are configured with ionisers that neutralise static charges and prevent re-attraction of contaminants to the product.

## Why is ionisation important in the removal of dust particles?

Static electricity plays a major role in removing dust particles. On the one hand dust particles are charged and on the other hand the surface can have a static charge. A charged dust particle is attracted and held by a neutral surface or a surface with an opposite charge. A neutral particle is attracted and held by a charged surface. The weight of a dust particle is very little, so even with a small static charge creates a huge attraction.

## There are various methods of surface cleaning

### Blow off

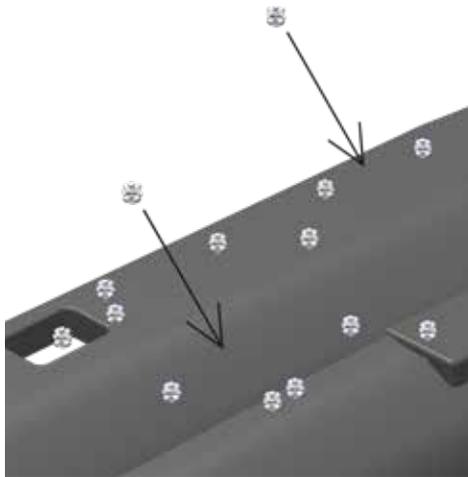
- ⊕ With compressed air nozzles, gun or airknife
- ⊕ With blower driven airknife

### Vacuum

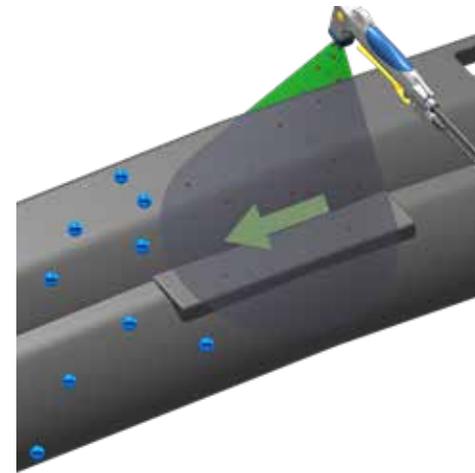
- ⊕ With a vacuum system

Simco-Ion or a local representative can assist you with determining the most effective and economical way of surface cleaning.  
[www.simco-ion.co.uk/contact](http://www.simco-ion.co.uk/contact)

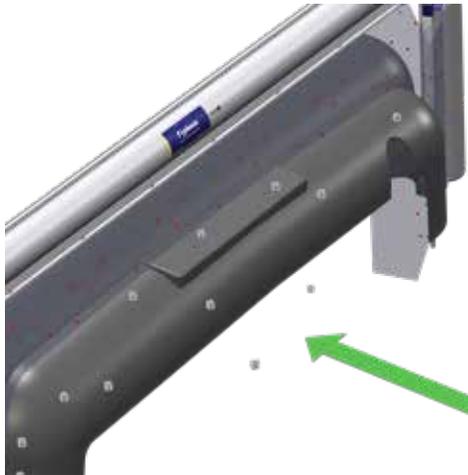
Download the whitepaper: "Ionisation in surface cleaning": [www.simco-ion.co.uk/wp](http://www.simco-ion.co.uk/wp)



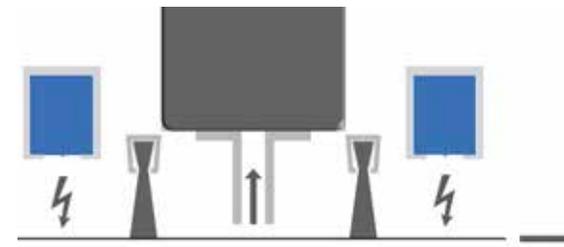
+ Dust attraction



+ Cleaning with compressed air nozzles, gun or airknife



+ Cleaning with blower driven airknife



+ With a vacuum system



## Typhoon systems

Typhoon airknives eliminate static and remove particles from flat and contoured surfaces. A Typhoon system incorporates a blower with an airknife. This system provides a continuous stream of clean ionised air for removal of surface particles and contamination. The Typhoon is adaptable to large halo systems used for auto and truck body cleaning prior to painting. It is also suitable for cleaning bumpers and other plastic parts. The bumpers or parts can be placed on a rack before going into the spray-painting cabin. By using blowers instead of compressed air, Typhoon can reduce operational costs by 30 to 70%.

### Features:

- The operational costs can be reduced by 30 to 70% by using a Typhoon air knife in combination with a blower
- Working distance: 2000 mm max.
- Removes particles from flat or contoured surfaces



## Typhoon with Performax IQ Easy anti-static bar

The air knife comes with a Performax IQ Easy anti-static bar (24V, optional with Manager).

### Features:

- Incorporates Simco-Ion anti-static bars which quickly neutralize static, facilitating easy removal of particulate
- Clean, uniform, high-velocity ionised air provides “one-step” cleaning
- Direct-drive motors require little or no maintenance
- Anodised finish for corrosion protection
- Connection for pressure sensor
- New design extruded aluminium profile
- Cost efficient versus compressed air
- Two mounting grooves
- Small blower/ low noise level

Dimensions: Length 278-3848 x Width 172 X Height 118 mm



## Typhoon with Performax IQ Easy Ex anti-static bar

The air knife comes with a Performax IQ Easy Ex anti-static bar for use in explosion hazardous areas.

### Features:

- Incorporates Simco-Ion anti-static bars which quickly neutralize static, facilitating easy removal of particulate
- Clean, uniform, high-velocity ionised air provides “one-step” cleaning
- Direct-drive motors require little or no maintenance
- Anodised finish for corrosion protection
- Connection for pressure sensor
- New design extruded aluminium profile
- Cost efficient versus compressed air
- Two mounting grooves
- Small blower/ low noise level
- Only in combination with a Manager IQ Easy
- Approved for use in explosion hazardous zones

Dimensions: Length 425-3035 x Width 172 x Height 117 mm





### Typhoon with EP-Sh-N anti-static bar

The air knife comes with a type EP-Sh-N anti-static bar (with power supply).

**Features:**

- ✦ Incorporates Simco-Ion anti-static bars which quickly neutralize static, facilitating easy removal of particulate
- ✦ Clean, uniform, high-velocity ionised air provides “one-step” cleaning
- ✦ Direct-drive motors require little or no maintenance
- ✦ Anodised finish for corrosion protection
- ✦ Connection for pressure sensor
- ✦ New design extruded aluminium profile
- ✦ Cost efficient versus compressed air
- ✦ Two mounting grooves
- ✦ Small blower/ low noise level

Dimensions: 200-4100 x Width 144 x Height 96 mm



### Typhoon with P-Sh-N-Ex anti-static bar

The air knife comes with a P-Sh-N-Ex anti-static bar (230V) for use in explosion hazardous areas.

**Features:**

- ✦ Incorporates Simco-Ion anti-static bars which quickly neutralize static, facilitating easy removal of particulate
- ✦ Clean, uniform, high-velocity ionised air provides “one-step” cleaning
- ✦ Direct-drive motors require little or no maintenance
- ✦ Anodised finish for corrosion protection
- ✦ Connection for pressure sensor
- ✦ New design extruded aluminium profile
- ✦ Cost efficient versus compressed air
- ✦ Two mounting grooves
- ✦ Small blower/ low noise level
- ✦ Approved for use in explosion hazardous zones

Dimensions: 240-4140 x Width 176 x Height 152 mm



### Typhoon blower

**Features:**

- ✦ The operational costs can be reduced by 30 to 70% by using a Typhoon Blower instead of compressed air



### ES-2J

The ES-2J is an ionising air gun that can be used in heavy-duty industrial applications.

#### Features:

- ⊕ Working distance: 300 mm max.
- ⊕ It comes standard with 3 metres cable, 6 or 9 meter is also possible
- ⊕ Ideal for heavy-duty industrial applications

Dimensions: Length 178 x Width 28 x Height 157 mm



### Cobra

The Cobra ionising air gun is excellently suited for heavy-duty industrial applications. By drawing in ambient air through the rear, the air flow is amplified by a minimum factor of 6 : 1.

#### Features:

- ⊕ Working distance: 600 mm max.
- ⊕ It comes standard with 6 metres cable, 12 metre is also possible
- ⊕ Ideal for heavy-duty industrial applications
- ⊕ The emitter pin is cleaned during use

Dimensions: Length 251 x Width 52 x Height 153 mm



### Top Gun

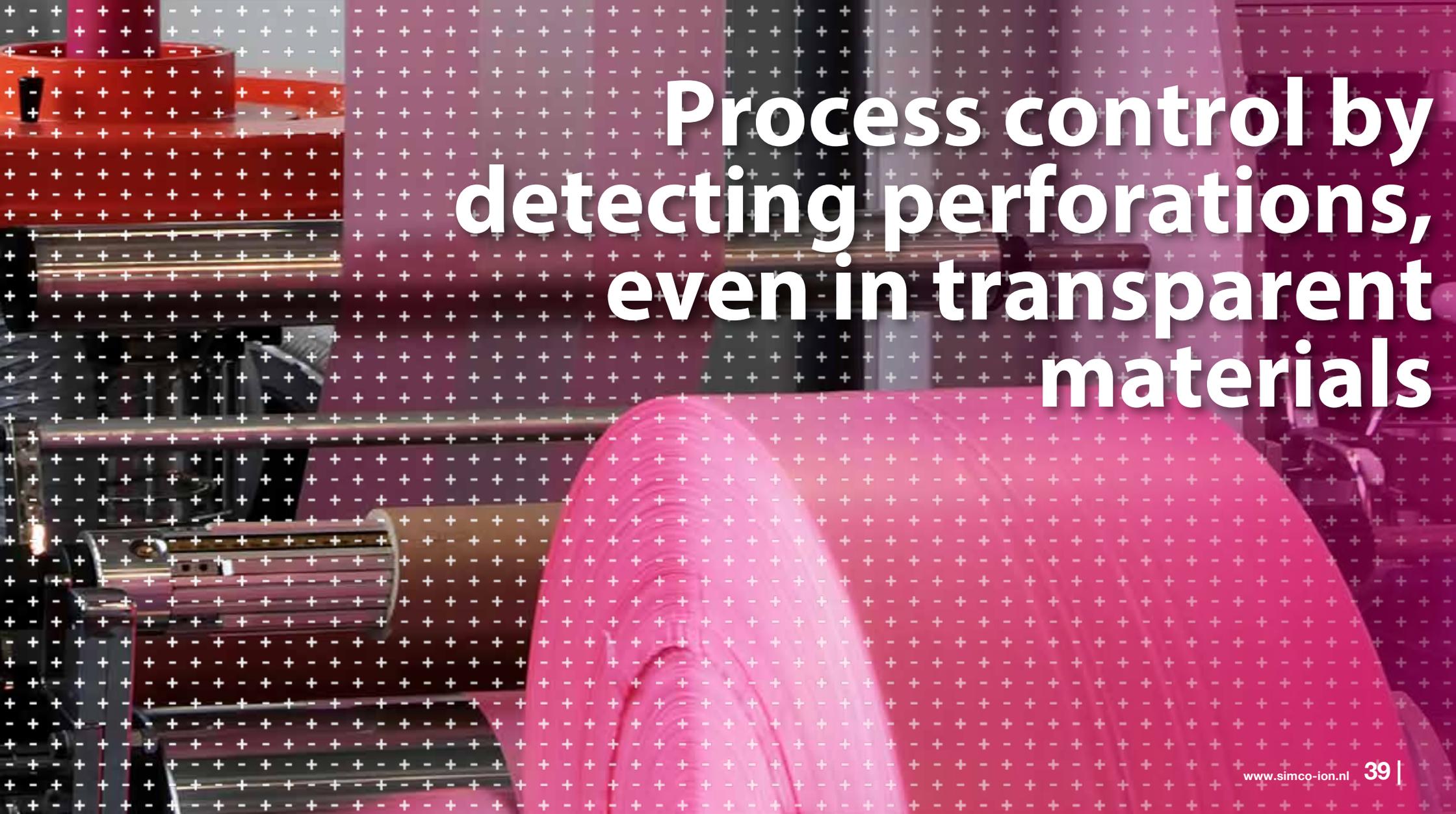
The Top Gun is an ionising air gun which can be used for light industrial applications.

#### Features:

- ⊕ Working distance: 300 mm max.
- ⊕ 3 metre cable
- ⊕ Suitable for light industrial applications
- ⊕ A filter at the exit of the Top Gun ensures that the air is clean
- ⊕ Twolevel LED which indicates if the gun is in "stand by" mode and if high voltage is currently active
- ⊕ A hanger to hang the gun is provided as standard

Dimensions: Length 203 x Width 34 x Height 168 mm

# Perforation detection



**Process control by  
detecting perforations,  
even in transparent  
materials**

# Perforation detection

## Perforation detection:

In many production processes, it is necessary to detect perforations and leaks in injection-moulded products or films. Existing methods such as vacuum, pressure or optical control are often not applicable to transparent products or shapes that are difficult to handle.

High voltage spark over can be used in a controlled way to detect perforations in these cases.

A spark over from a special electrode to a ground reference can be detected and evaluated.

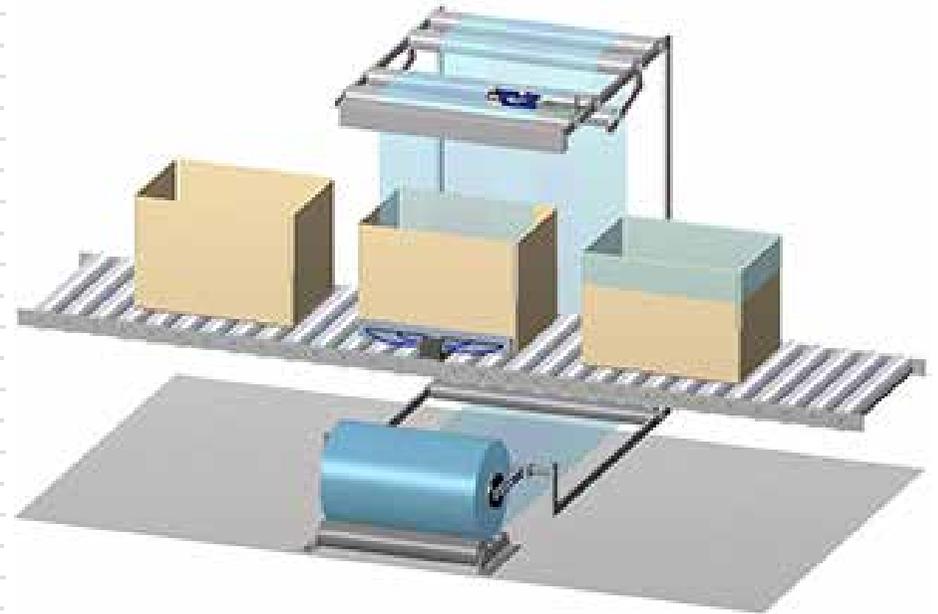
Perforations in plastic webs and products can be detected and counted. Perforations in moving webs can be detected with a special detection bar and a high voltage generator. Perforations will be detected but not localised. A perforation in the film will create a spark through the material and will generate an output signal on the charging generator. Due to the strong electrical field placement of anti-static bars after the perforation detection is mandatory.

Perforations in products can be detected using high voltage to create a spark through the perforation. Common application is testing the injection point of injection moulded products e.g. yoghurt cups, bottles and containers.



Detecting perforations in products

Perforations in a web material can be used to determine the position of the material in the machine. The perforation can be the “tear-off perforations” of bags or a deliberate perforation made to determine a position. Perforation detection with the use of high voltage is not depending on the material surface and can also be used with transparent materials. When a perforation passes between the high voltage electrode and a ground electrode, a spark is generated. This spark will be detected and a pulse signal will be available for use by the machine control system.



Determine the position of the material

Simco-Ion or a local representative is willingly to advice you if perforation detection voltage can be used in your production process. [www.simco-ion.co.uk/contact](http://www.simco-ion.co.uk/contact)



## Perfomaster

The Perfomaster perforation detector provides the hardware and software to generate a controlled spark over, detect this and evaluate the spark over to produce a pulse signal. The pulse signal is available on the output connector and can be used for counting the detected spark-overs and thus perforations.

### Features:

- + Incorporated high voltage power supply, input voltage 24V DC
- + No high voltage cables needed
- + Two-colour status LED:
  - + Green LED: signals operation OK
  - + Red LED: An intermittent LED signals a perforation detected
- + Supply voltage and output voltage setting can be provided:
  - + Directly from the machine f.e. PLC
  - + With additional external control kit

Dimensions: Length 178 x Width 28 x Height 157 mm



## CM5

The CM5 high voltage generator is available in two variants, the CM5-30 with an output voltage of 0-30 kV DC and the CM5-60 with an output voltage of 0-60 kV DC.

### Features:

- + Output voltage of 0-30 kV DC (CM5-30)
- + Output voltage of 0-60 kV DC (CM5-60)
- + Available with a positive or negative output voltage
- + Voltage Control and Current Control
- + Password protected menu, lockable keyboard
- + 4 line LCD display with dual instructions (text + symbols)
- + Analogue remote control functions and signals
- + Quick set-up
- + Keyboard security lock
- + Advanced Current Control (patented)
- + Advanced Output Control
- + Serial bus interface optional
- + 180 ° reversible control panel equipped with membrane switches

### CM5-30

Dimensions: Length 340 x Width 272 x Height 106 mm

### CM5-60

Dimensions: Length 388 x Width 272 x Height 106 mm



## HD Det

In order to detect perforations in a moving material web, this special electrode is equipped with a resistance per emitter. When a perforation passes the electrode, there will occur a controlled spark over. This is detected by the associated CM5 high voltage generator and is communicated with an output signal and the flashing of the red LED.

### Features:

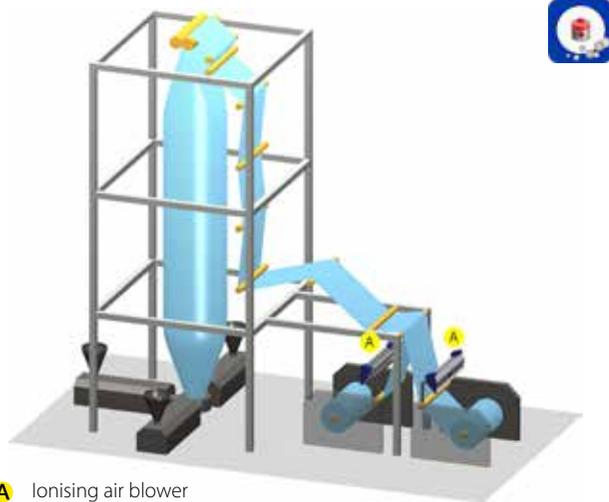
- + Detection of perforations over a large area
- + Detection of very small perforations possible

Dimensions: Length 87,5-4675 x Width 30 x Height 53 mm

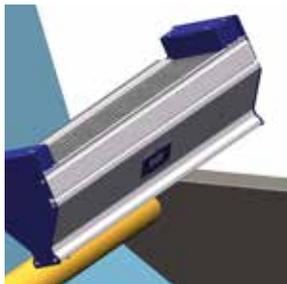
# Applications

A young boy with brown hair and green eyes is shown from the chest up. He has a thick layer of white shaving foam on his face and hands. He is looking directly at the camera with a neutral expression. The background is a dark blue-grey color with a grid of small white plus and minus signs. The text 'Simco-Ion offers many possibilities in many applications' is overlaid on the right side of the image in a large, white, bold, sans-serif font.

**Simco-Ion offers  
many possibilities  
in many  
applications**

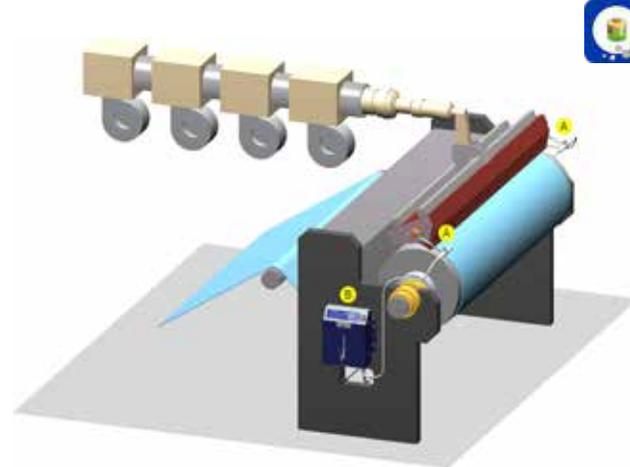


**A** Ionising air blower

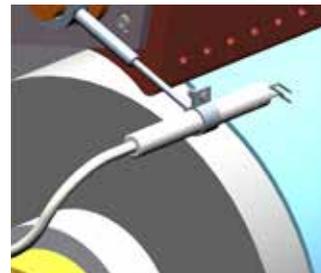


### How do I get a clean film, which is free of static charge, from a blown film extrusion machine?

An ionising blower is installed directly above the film. It blows ionised air to the film. Due to this the static electricity is neutralised during winding, which also prevents dust is being reattracted. It also prevents that employees get a shock from a static discharge.

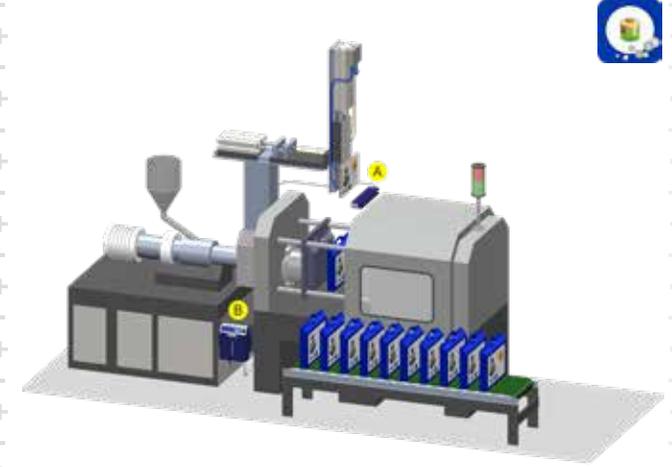


**A** Charging electrode      **B** Charging generator

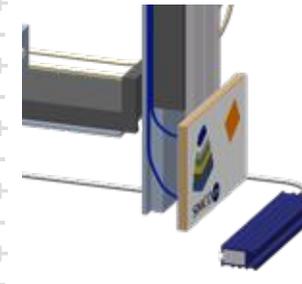


### How do I reduce shrinking at the edge of a film on a cast film extrusion machine?

A charging applicator at each edge of the film on the chill roll applies a static charge to the extruded film as it contacts the chill roll. The static charge effectively prevents 'neck-in' of the film.

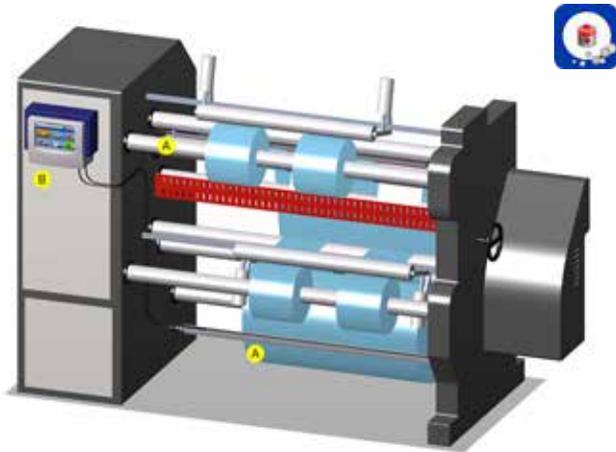


**A** Charging bar      **B** Charging generator



### How do I hold a label in position during the injection moulding process? (electrostatic in mould labelling (IML))

Outside the mould a robot presents the label to a charging bar which applies an electrostatic charge to the label. The label is then placed into the mould cavity, where it sticks due to the electrostatic bond between the label and the metal mould wall. Therefore the label will not slip or change position in the mould.



**A** Anti-static bars **B** Manager IQ Easy

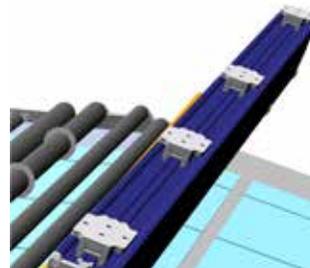


### How do I get a clean film, which is free of static charge, from a roll slitting machine?

Immediately after the slitting operation and before winding anti-static bars will be placed. This will neutralise the static electricity, generated during the winding, and prevents that cutting dust will be attracted. It also prevents that employees get a shock from static discharge.

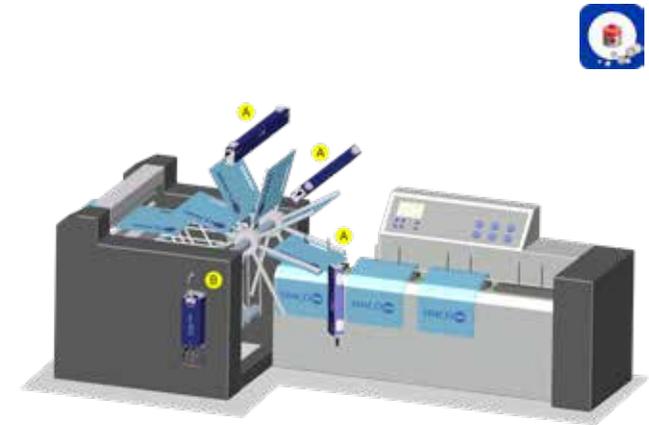


**A** Anti-static bar

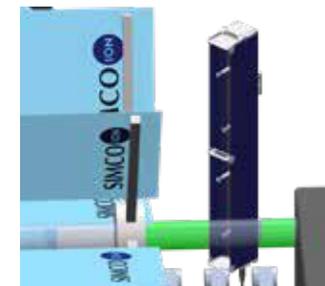


### How can I ensure that sheets are well cut and stacked?

An anti-static bar is placed directly above the film after the cutting process. Hereby static charges are eliminated whereby the sheets can be cut and stacked correctly without jams.

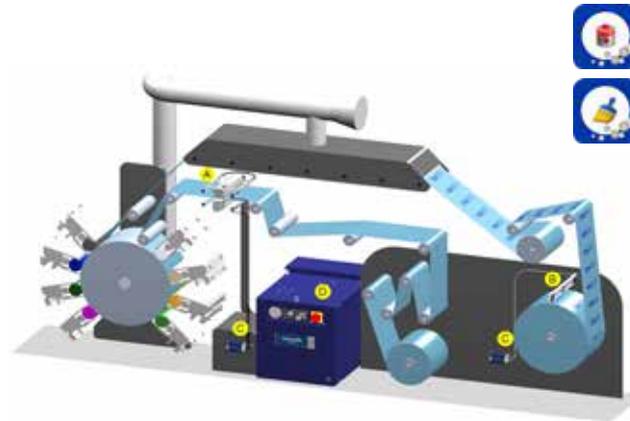


**A** Anti-static bars **B** Control module

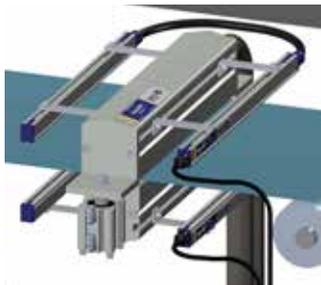


### How can I ensure that bags are well stacked on a wicketer?

Static charges can make bags stack poorly, decreasing production yields and increasing rejects. An anti-static bar with a long range ensures neutralization of the bags which creates a good stack.

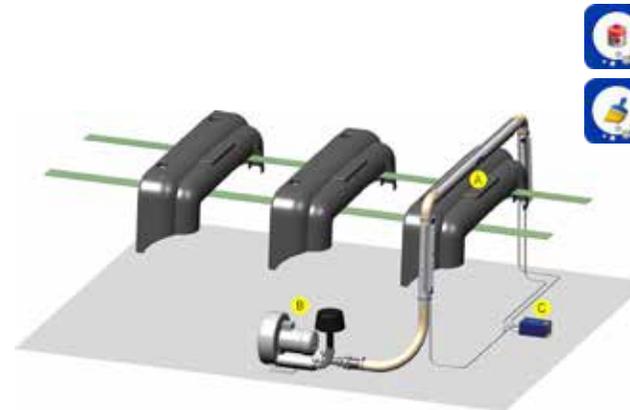


**A** Webcleaner **B** Anti-static bar **C** Power unit  
**D** Dustcollector

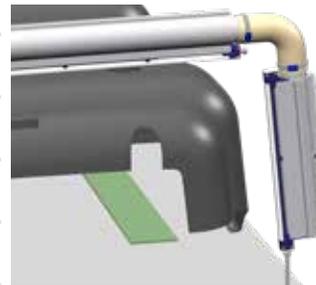


### How can I achieve a high print quality with a flexoprint machine?

Webcleaning systems effectively remove slitter dust and other contaminants from the surface of films prior to printing. By using a web cleaning system, the problem of slitter dust and environmental contaminants on the surface of the film is eliminated and a high print quality is achieved.

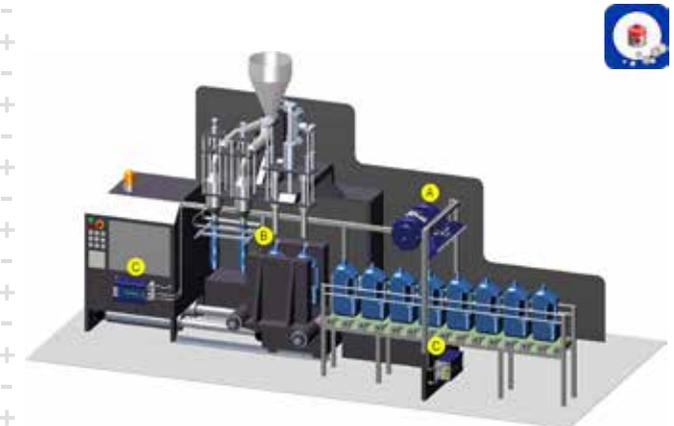


**A** Ionising airknife **B** Blower **C** Power unit

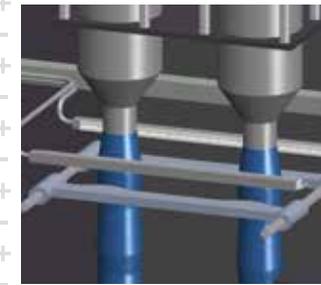


### How can I remove dust on car bodies and bumpers prior to painting?

Combined with anti-static bars, blower driven Typhoon airknives becomes a powerful tool for removing dust and dirt from flat or contoured surfaces like car bodies and bumpers prior to painting. By using a Typhoon blower instead of compressed air, the operating costs can be reduced by 30% to 70%.

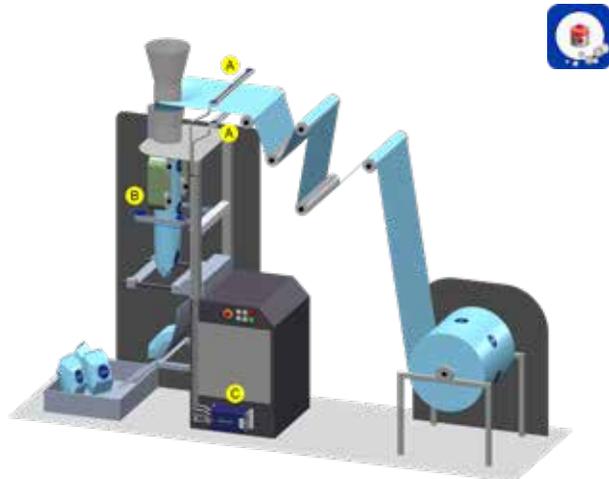


**A** Ionising air blower **B** Anti-static bar **C** Power unit



### How do I avoid production stops or failures in the blown bottles in my blow moulding process?

Heat resistant anti-static bars assure an adequate elimination of static charges on the parison and thus for a good production without productions stops or failures in the blown bottles.



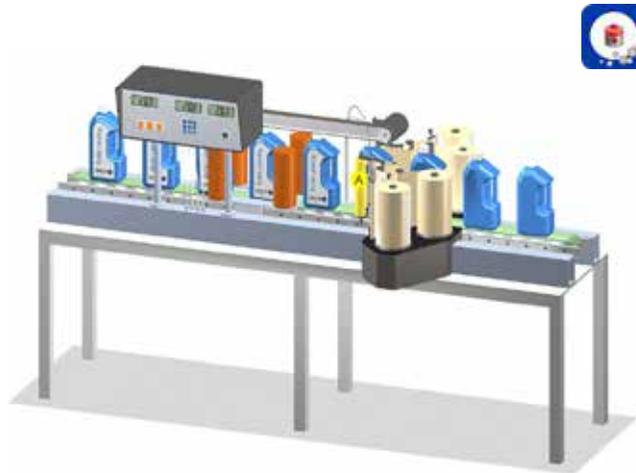
**A** Anti-static bars **B** Anti-static nozzles **C** Power unit



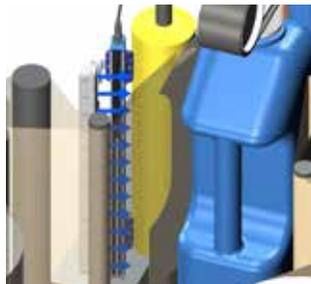
**How can I prevent the film from sticking to the shoulder/former during the vertical form, fill and seal process? How do I get good and neat seal?**

Both at the top and bottom of the form shoulder an anti-static bar has to be placed. This prevents the film from sticking to the form shoulder and prevents rejects of the finished package due to product fines attracting to the film.

Ionising air nozzles just below the fill tube will neutralise the static charges, resulting in a clean seal.

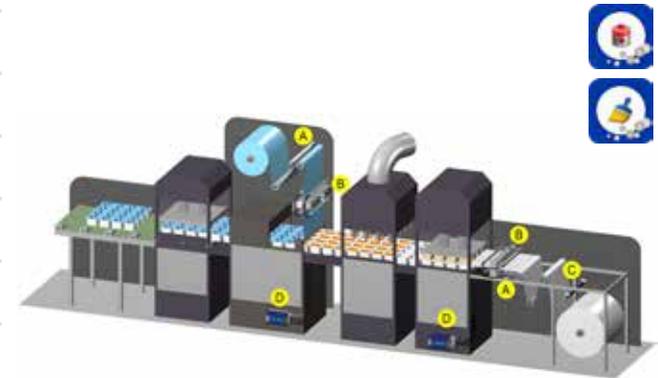


**A** Anti-static bar with airknife

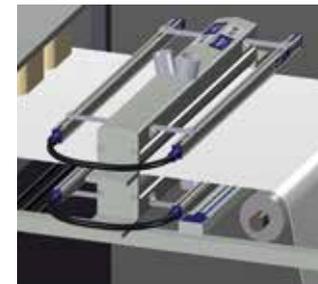


**How do I prevent that labels are bad positioned?**

Anti-static bars with airknife positioned on the right position prevents that labels, due to static charge on the labels and bottles, are bad positioned. Thus, the production speed is not delayed and there are no bottles rejected.



**A** Anti-static bar **B** Webcleaner **C** Anti-static bar **D** Power unit

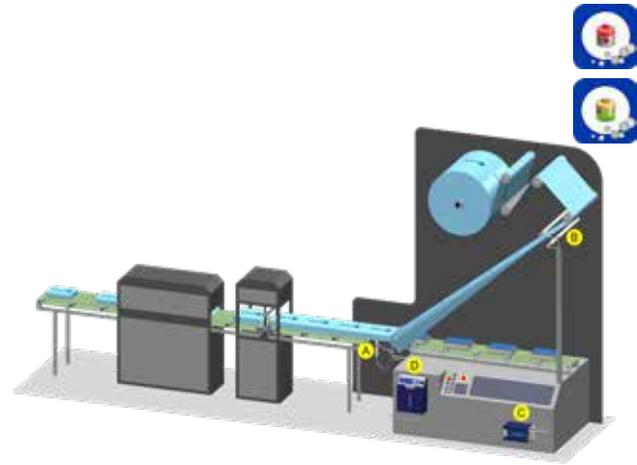


**How do I avoid machine stops or delay caused by adhesion from the film on my thermo-/vacuum-form machine?**

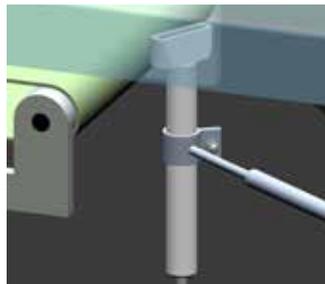
**How do I prevent that dust is being attracted?**

- + Simco-Ion ionising air blowers produce an ionised airflow and eliminate the static charge by unwinding.
- + To remove the contamination on the film just before vacuum forming, Simco-Ion recommends a webcleaning system.
- + By making use of our ionisation devices you prevent that operators receive a shock.



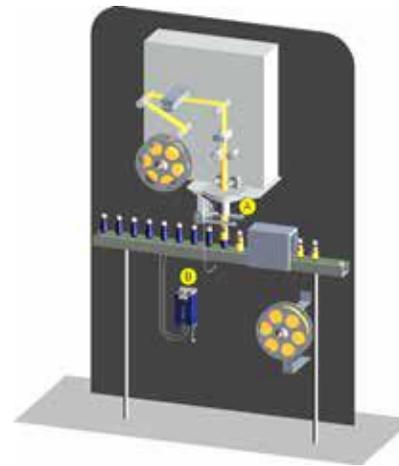


**A** Charging electrode   **B** Anti-static bars   **C** Power unit  
**D** Charging generator

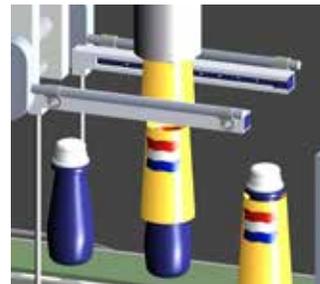


### How do I avoid the film from sticking to the metal rollers and how do I avoid that the product is bad inserted into a tubular foil during the horizontal flow wrap process?

By placing anti-static bars after unwinding the film, the electrostatic charge on the film caused by the unwinding is neutralised. In this way, the film does not stick to the metal rollers, and the product can be inserted well into the tubular foil. By adding an electrostatic charge before the product goes into the shrink tunnel, it prevents the film from tearing in the shrink tunnel. For this purpose a Simco-Ion charging electrode is used.

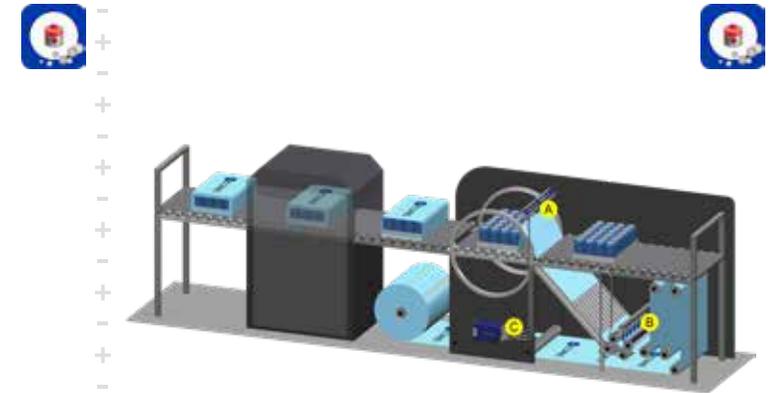


**A** Anti-static bars   **B** Power supply

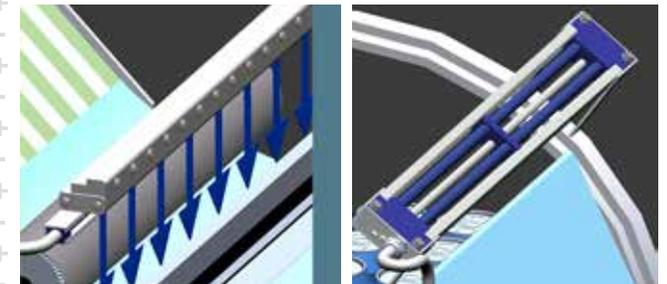


### How do I avoid a bad positioning of the sleeve?

Placing anti-static bars ensures that the static charge that arises on the film is neutralised. In this way the film doesn't stick to the mandrel and the sleeve is properly positioned.

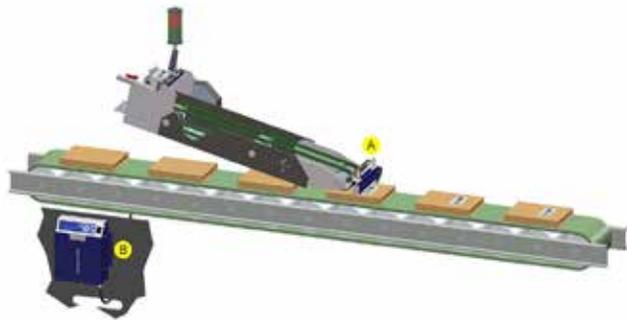


**A** Anti-static bar   **B** Anti-static bar with airknife   **C** Power unit

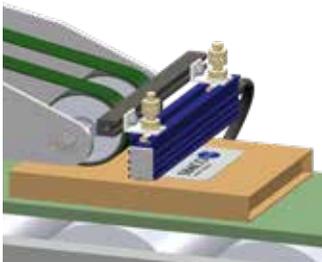


### How do I prevent the film from sticking and wrapping around rollers?

Installing an anti-static bar will neutralise the static charge that arises by unwinding from the packaging film. This will prevent the film from sticking and wrapping around the rollers. By blowing a stream of ionised air over the film just after the cutting section, the static charge on the film will be neutralised. A long range anti-static bar placed over the wrapping bars will keep the tail end from sticking against the film.

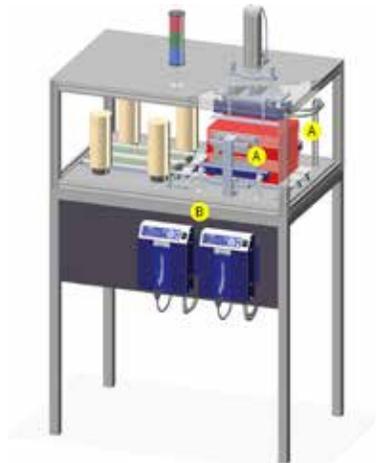


**A** Charging bar **B** Charging generator

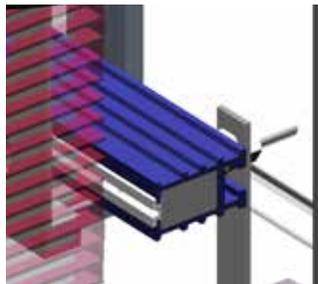


### How do I ensure that labels stay at the right position?

Apply a static charge with the charging bar to the card as it hits the package to effectively hold the card in place.



**A** Charging bars **B** Charging generator

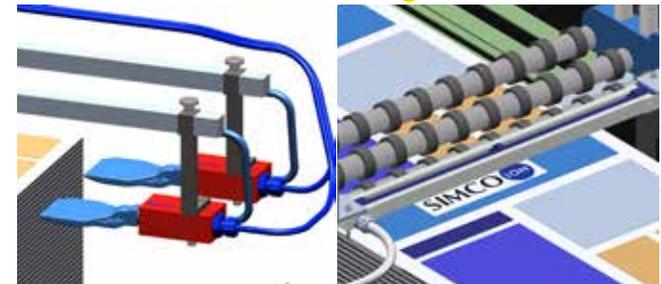


### How do I ensure that the stack does not shift or fall over before packing or palletizing?

It is possible to block the stack electrostatically. The stack is provided with a static charge by means of charging bars at the top and both sides and can't move or fall over anymore during further transport.

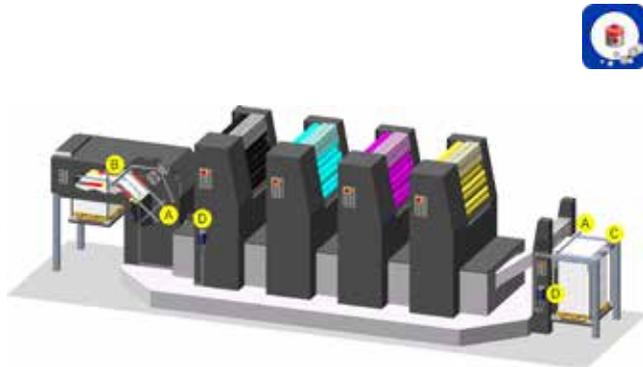


**A** Anti-static bars **B** Anti-static bar **C** Ionising nozzles **D** Power unit

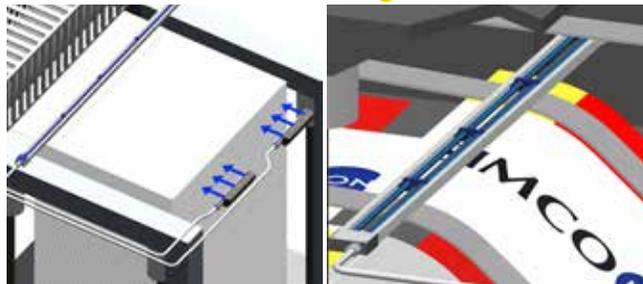


### How can I ensure that sheets don't stick together before the folding process? How can I prevent registration problems during folding?

Before the in-feed ionising air nozzles will be placed which are blowing ionised air. This way the sheets are separated and neutralised so that the sheets can be removed from the stack individually. An anti-static bar just after the in-feed insures that the individual sheets are moved without problems. Friction generated by the folding operation creates an electrostatic charge again, which will cause registration problems. An anti-static bar on the folding section will eliminate this problem. Finally an anti-static bar will neutralise the static charge before stacking so that a neat stack is created.

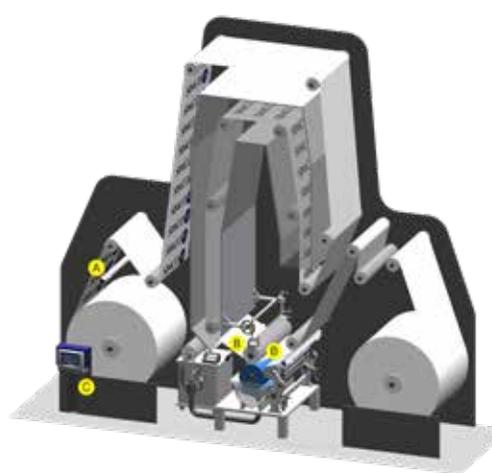


**A** Anti-static bar **B** Anti-static bar **C** Anti-static bars with airknife  
**D** Power unit

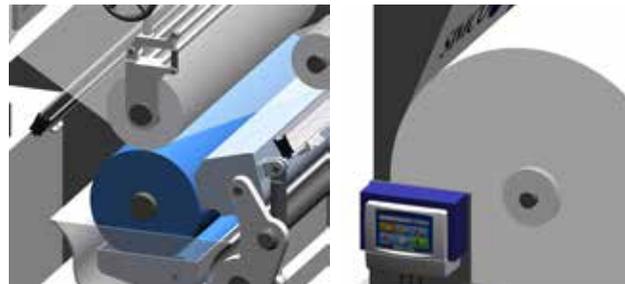


### How do I ensure that sheets don't stick at the feeder and how do I ensure a neat stack at the delivery section?

Ionising air knives are placed before the feeder to ensure that the sheets are separated and the top sheet is well fed into the machine. During transport the sheet is discharged again by an anti-static bar. Single or double side anti-static bars at the delivery section will ensure a neat stack.

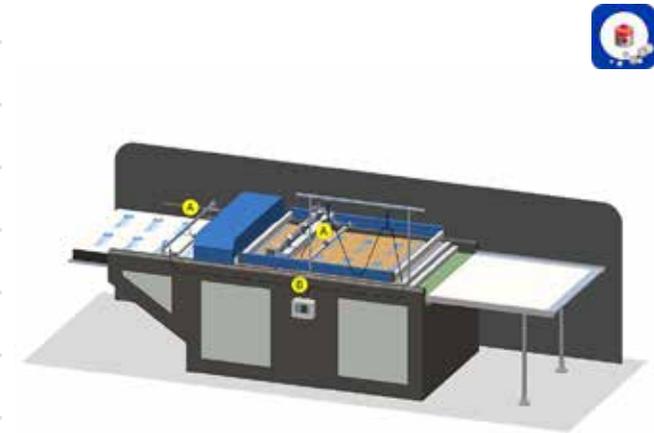


**A** Anti-static bar **B** ATEX approved anti-static bars **C** Power unit

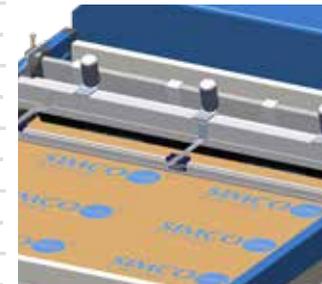


### How do I avoid that sparks or even fire occurs during the roto gravure printing process?

The ATEX approved Simco-Ion anti-static bar P-Sh-N neutralises the static charges before and after the print station allowing for static free, safe, printing.



**A** Anti-static bars **B** 24 V Power supply

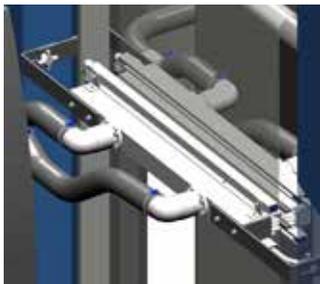


### How do I avoid that a sheet sticks to the pile of my silkscreen printing machine and how do I avoid that sheets don't move or get stuck during the transport through the drying tunnel?

All these problems can be solved by the application of several Simco-Ion ionisation systems. For example by placing anti-static bars on the squeegee and at the delivery section.

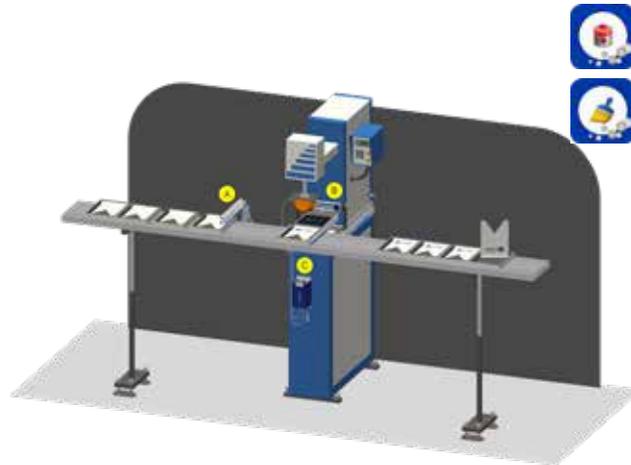


**A** Webcleaner    **B** Dustcollector    **C** Power unit



**How do I get substrates without contamination?**

Simco-Ion has developed a Plug and Run cleaning system for narrow webs. The system has to be installed above the substrate prior to entering the printing unit. Contamination is removed, print quality is improved whilst misprints are prevented. Service intervals are also reduced due to the collection of paper dust.

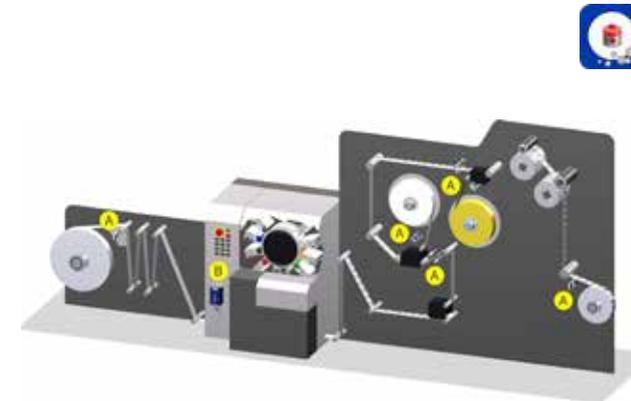


**A** Anti-static bar with airknife    **B** Anti-static bar    **C** Power unit

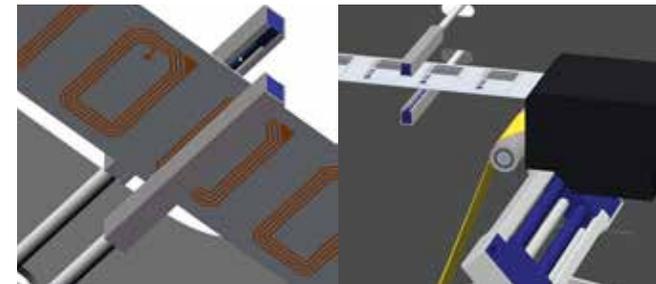


**How do I avoid that paint splashes occurs and how do I ensure a better print quality and less rejects on a tampon printing machine?**

An anti-static bar can neutralise the static charge on the tampon and prevent these problems. Dust particles on the product can influence the print quality. An air supported anti-static bar cleans the product prior to printing, this will provide in better printing and less rejects.

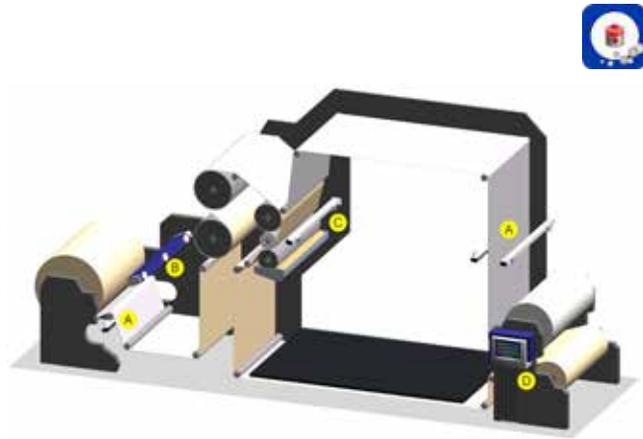


**A** Anti-static bars    **B** Power unit

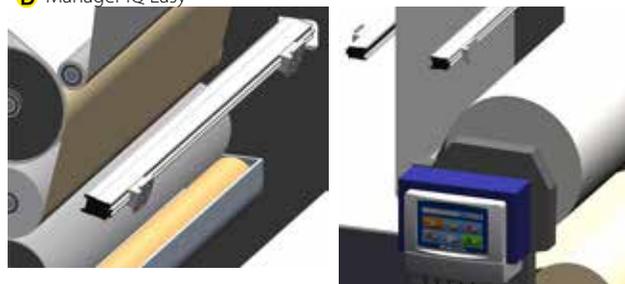


**How do I avoid that the microchip contained in a RFID tag is damaged due to static charges?**

Anti-static bars will be placed in the tag and label printing/production operation, i.e. anywhere along the path from the feed-roll to the rewind. The anti-static bars neutralises the static charges which occurs during these processes.

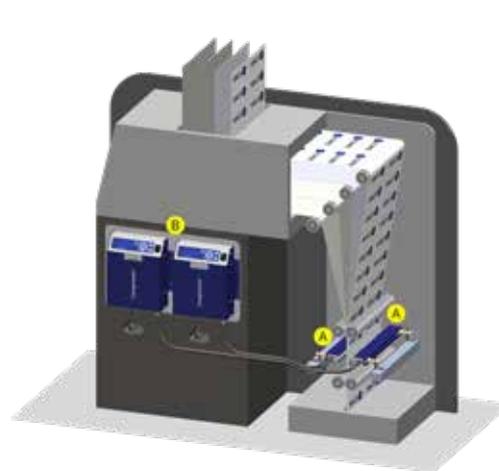


**A** Anti-static bars   **B** Anti-static bar   **C** ATEX approved anti-static bar  
**D** Manager IQ Easy

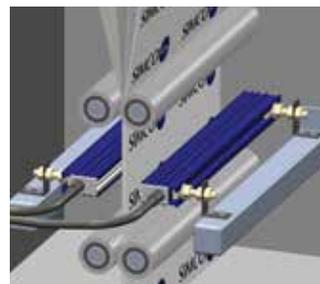


### How do I avoid problems during coating and laminating, such as:

- ⊕ Operators get electrical shocks;
  - ⊕ Attraction of airborne contaminants;
  - ⊕ Coating quality reduction
  - ⊕ Sparks which can cause a fire in an explosion hazardous environment due to the presence of volatile solvents
- ATEX approved static elimination systems can neutralise the static charge and thus prevent all above mentioned problems. Outside the explosion hazardous area standard ionising systems can be used for unwind and rewind stations.

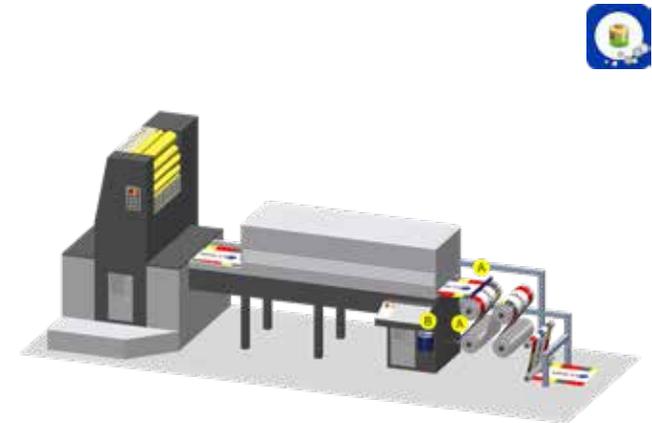


**A** Charging bars   **B** Charging generator



### How can I prevent air from being trapped between layers and how can I improve the sheet registration during cutting and folding and prevent dog-ears? (ribbon tacking)

By placing charging bars with opposite polarity on either side of the paper web, the layers will stick together whereby air entrapment is prevented. Also during cutting and folding the static charge ensures a good registration and folding without dog-ears.

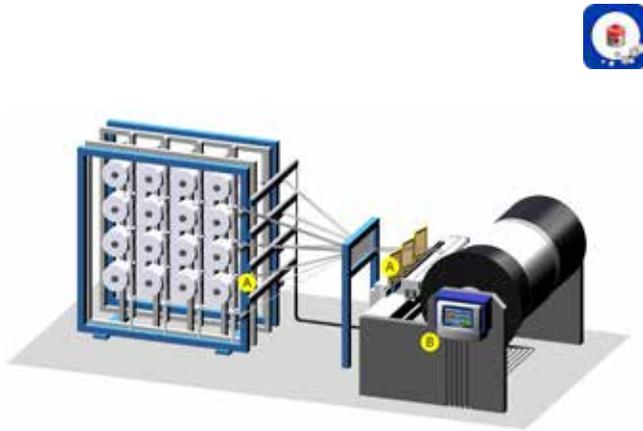


**A** Charging bars   **B** Charging generator

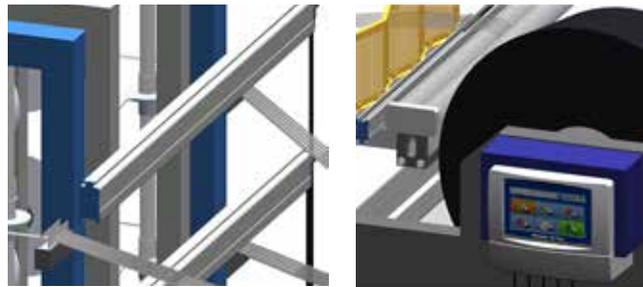


### How can I improve the cool efficiency of my Web Offset press machine and how do I prevent slippage of the web and condensation streaks?

The Chill Tack system is designed for Web Offset printing presses. Charging bars add a static charge to the web at the first point of contact to the chill roll. Because of the static charge the web is drawn flatter on the cooling roll so that the cooling efficiency is improved. Furthermore it prevents slippage and eliminates condensation streaking.

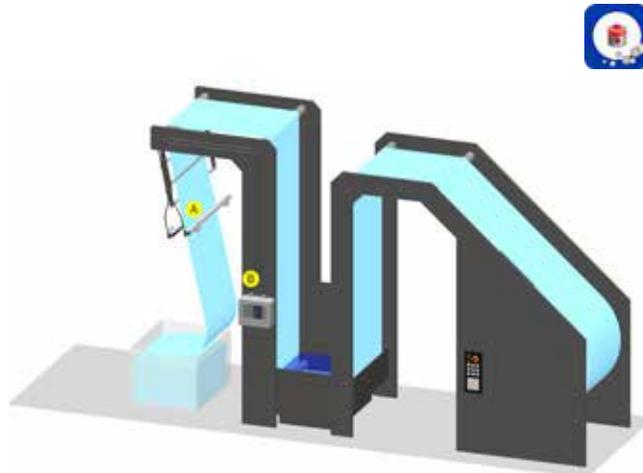


**A** Anti-static bars      **B** Power unit



How do I prevent balloon formation (repel of yarns) whereby problems are caused on the creel?

By installing anti-static bars just before the warping these problems can be solved.

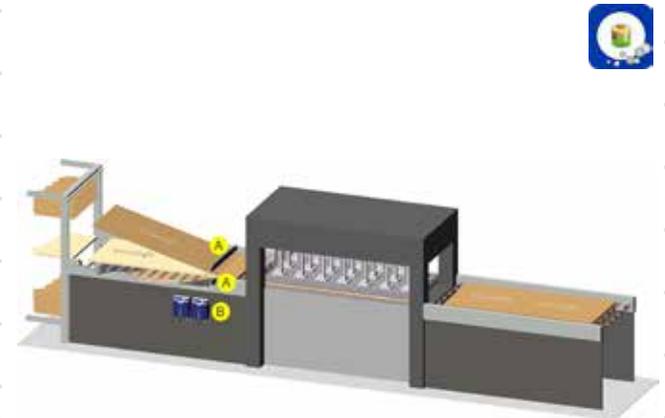


**A** Anti-static bars      **B** 24 V Power supply

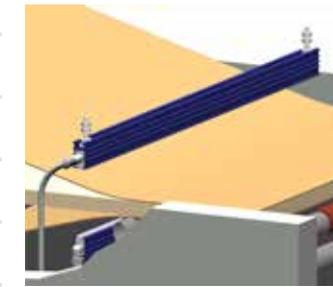


How do I ensure that the textile web doesn't stick to machine parts, that operators don't get electrical shocks and that textile is stacked neatly?

By placing anti-static bars at the delivery section of the machine the static charges that occur during the production of textile webs is neutralised.



**A** Charging bars      **B** Charging generator



How do I prevent that the decoration layers slide during transport to the press?

Charging bars will be installed just after the decoration paper is laid down on the chipwood preventing the paper to move.



A-Unit



BlowION



BW



CM Tiny



CleanION DD



CleanION VAC 11



CleanION VAC 13



CM5-30



CM5-60



CM lite



CMME



Cobra



Control Module ThunderION



Conveyostat®



EP-Sh-N



ES-2J



Extension IQ Easy



Flat Nozzle



FMX-004



HDC



HDR



HE



HP-N-Ex



IML Easycore



IML Spider



LB2A4S



Manager IQ Easy



MaxION



MEB



MEB anti-static bar with airknife

# QR codes



MEJ



MPM



Perfomaster



Performax Easy



Performax Easy Ex



Performax IQ Easy anti-static bar with airknife



Performax Easy Speed



Performax IQ Easy



Pinner 5 Point



Pinner Claw



Pinner Linear 6 Point



P-Sh-N



P-Sh-N-Ex



Sensor IQ Easy



Sentry



SS 1/2"



TensION



ThunderION



ThunderION 2.0



Top Gun



Typhoon Blower



Typhoon with EP-Sh-N anti-static bar



Typhoon with Performax IQ Easy anti-static bar



Typhoon with Performax IQ Easy Ex anti-static bar



Typhoon with P-Sh-N-Ex anti-static bar



VolumION



An ITW Company

### About Simco-Ion

Simco-Ion, a member of the worldwide ITW group, has operated in Europe since 1946.

Our activities started with the introduction of plastics in the textile industry.

Today we offer a comprehensive range of products to control static electricity, for instance in the plastics, packaging, converting and printing industries.

Our products are sold through an extensive network of competent agents.



### Organisation

Anyone operating in a large area should be able to respond rapidly. From receipt to despatch, we use modern systems for supervising and implementing all orders. Although highly automated, the production process is still flexible. Products are despatched by reliable international courier services. We are fully aware that any problems related to static electricity must not only be solved professionally, but usually also as quickly as possible.

### Technical skills

To respond effectively to the market needs we are continuously developing new products and applications. In this effort, we are driven by our customers. Many of our products have been developed in close co-operation with our customers. Apart from know-how, we have resourceful people. Briefly put,

Simco-Ion has an adequate solution to almost any problem with static electricity.

### Quality

You have a right to expect excellent quality from us. This is why our production processes are subjected to quality checks and a meticulous final inspection to ensure a high quality and reliable end-product. This continuous quality assurance effort is reflected in the ISO 9001 : 2008 certificate.

### Service

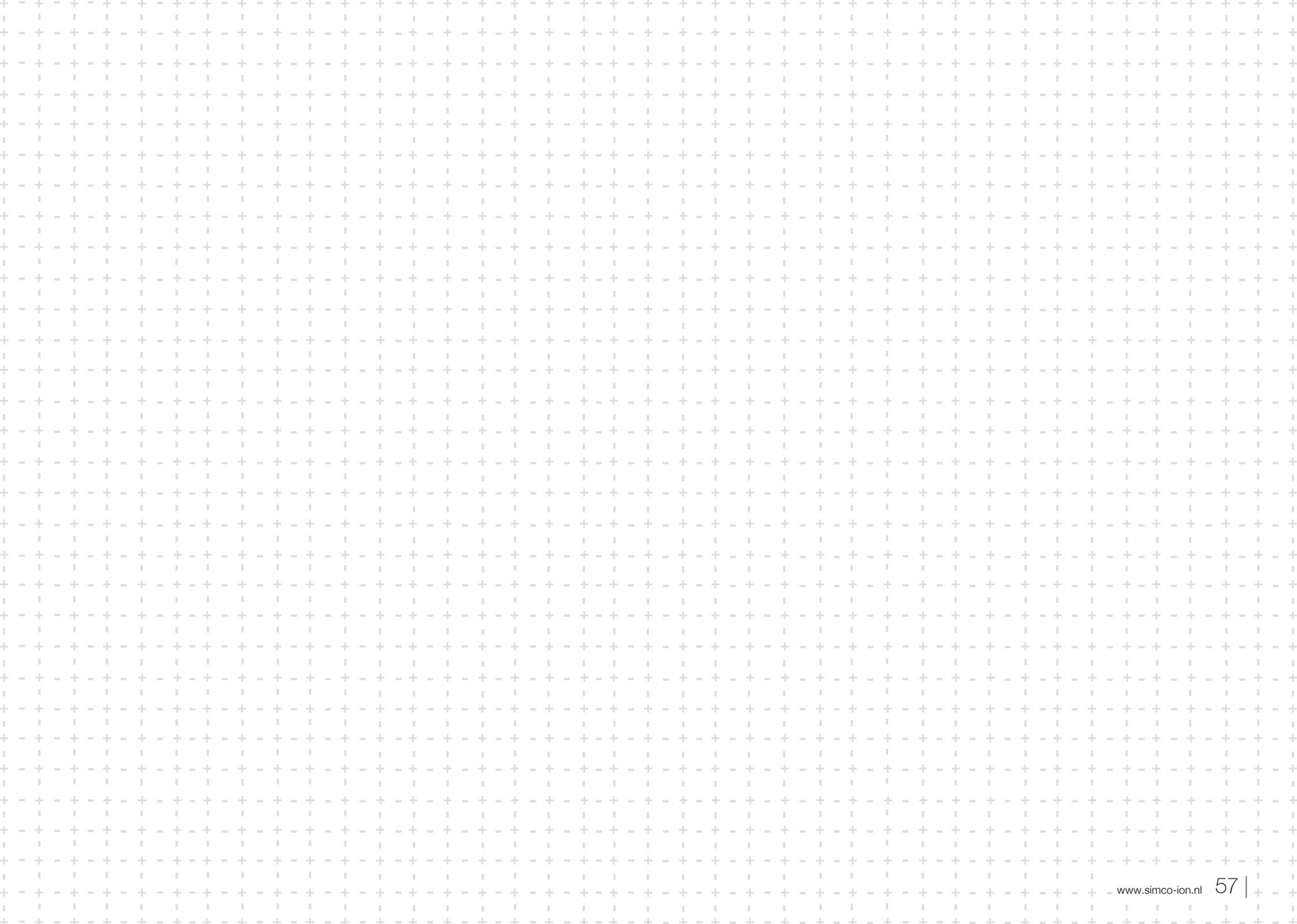
Our service doesn't stop when the product has been delivered. We also devote a great deal of attention to after-sales service. Apart from the usual guarantee, you may always call on us for product repair and calibration.

### Documentation

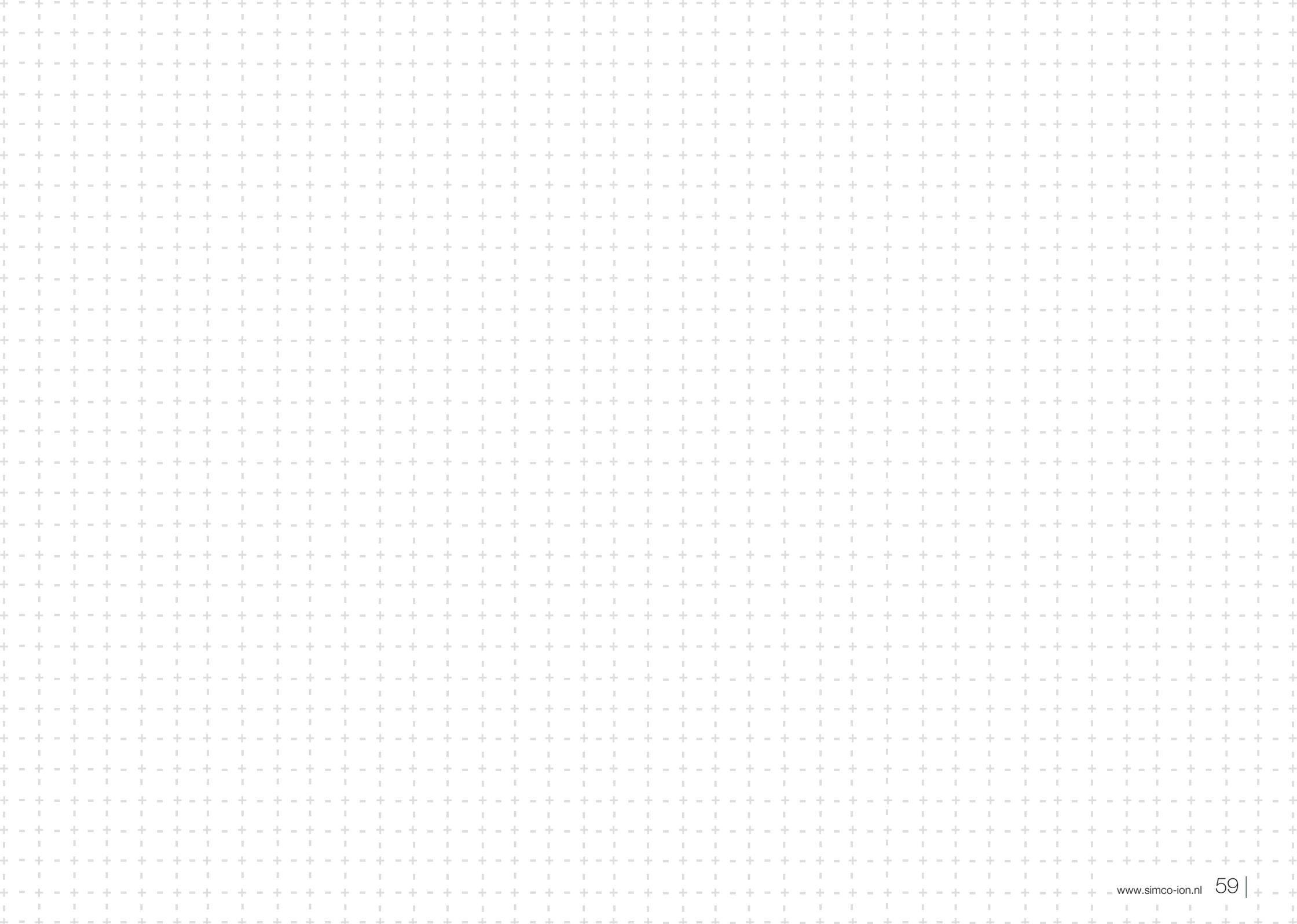
We give much thought to our documentation. In this effort, we always try to make explicit and straight forward documents. Our manuals meet the latest directives.

Simco-Ion has an instructive Internet website:  
[www.simco-ion.co.uk](http://www.simco-ion.co.uk)









**Worldwide support**

Simco-Ion has three main offices: the Netherlands, USA and Japan. Each main office has his own production facility and own distribution network, therefore Simco-Ion guarantees a worldwide support.



**Worldwide service**

Tailored advice by skilled local agents

Quality products, fast delivery

After sales assistance

**For more information go to our website [www.simco-ion.co.uk](http://www.simco-ion.co.uk)**

Simco-Ion Netherlands - Aalsvoort 74 - 7241 MB Lochem - The Netherlands  
T. +31 (0)573-288333 - F. +31 (0)573-257319 - E. [general@simco-ion.nl](mailto:general@simco-ion.nl) - W. [www.simco-ion.nl](http://www.simco-ion.nl)

**Simco-Ion Netherlands**

SIMCO (Nederland) B.V.  
Postbus 71  
7240 AB Lochem,  
The Netherlands  
T +31 [0]573 28 83 33  
F +31 [0]573 25 73 19  
[general@simco-ion.nl](mailto:general@simco-ion.nl)  
[www.simco-ion.nl](http://www.simco-ion.nl)

**Simco-Ion U.S.A.**

The Simco company Inc.  
2257 North Penn Road  
Hatfield, PA 19440 USA  
T +1 (215) 822-2171  
F +1 (215) 822-3795  
[customerservice@simco-ion.com](mailto:customerservice@simco-ion.com)  
[www.simco-ion.com](http://www.simco-ion.com)

**Simco-Ion China**

2/F, Bldg 11, Hebg Ming Zhu Tech Pk  
Xiang Xing road, Sha Jing, Bao An  
Shenzhen, Guangdong 518104

**Visit address:**

SIMCO (Nederland) B.V.  
Aalsvoort 74  
7241 MB Lochem  
The Netherlands

**Simco-Ion Japan Inc.**

Simco Japan Inc.  
1-2-4, Minatojima-Nakamachi  
650-0046 Chuo-Ku, Kobe  
T +81-78-303-4651  
F +81-78-303-4655  
[info@simcoion.jp](mailto:info@simcoion.jp)  
[www.simcoion.jp](http://www.simcoion.jp)