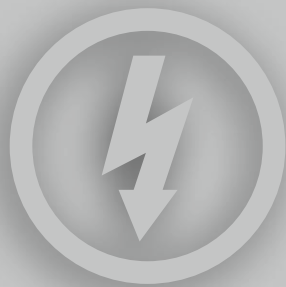




# Electrostatic solutions for better efficiency

GENERAL OVERVIEW

FOR ENGINEERS, PROFESSIONALS AND TECHNICIANS  
IN DEVELOPMENT, PRODUCTION AND INSTALLATION.



[WWW.KERSTEN.DE/EN](http://WWW.KERSTEN.DE/EN)

**KERSTEN** is a family business in its third generation. For more than 40 years, it has been our aim to generate the highest level of quality in all process levels. Thus, we ensure that research and development, production and support act together on location in Freiburg.

**Kersten-Quality made in Germany.**



## Increase Efficiency With Intelligent Products

With Kersten, you get the product which is perfectly suited for your purposes. We guarantee this through needs-based consultation and individual customized solutions. Thanks to our flexible in-house production, you benefit from very short delivery times.

Through our claim and experience, we guarantee you products that are well-engineered and very easy to operate. We are the system supplier for renowned manufacturers in many industries.

### YOUR BENEFITS IN DETAIL:

- Plug-in system
- Very small component sizes
- Flexible expansion options
- No EMC problems
- Zero to minimal maintenance
- Configurability according to your application
- Quality made in Germany
- Strict quality controls

### EXAMPLE OF AN INNOVATION:

The KERSTEN-developed, reverse polarity protected high-voltage connector for all discharging components



# KERSTEN Process

We have developed a process to give you the best support in eliminating electrostatic effects or for targeted use in specific production processes. Kersten Elektrostatik examines your entire process chain and creates the optimal system solution for your process: all the way from material testing via the Research & Development and Construction departments to product selection, configuration, installation and after-sales service.

## CONSULTATION

- We work with you to clarify all aspects that might lead to disturbances in your process chain. Both your process goals and your machine-dependent factors such as air-humidity, temperature, etc. are taken into account.

The power supply and the need for air-support are a part of this data collection. The data and the results are the basis for further steps on the way to optimum design. By using our modular components, future expansions or changes in requirements are able to be made.



## RESEARCH & DEVELOPMENT

- Our own research & development department is involved in the next step. They check whether we can offer you a solution from our portfolio. Should this not be the case, our development department will create a proposal for a special solution. Through your new request, we can get to devise a new product.



## SUPPORT

- As a final step, we make the process as easy for you as possible. We support you with logistics as well as carry out world-wide installations and technical briefings with qualified service technicians. We are, of course, also there to offer you support and assistance after installation.



## CONFIGURATION

- We then create an individually configured system for you from the selected components. This configuration includes, among other things, a feasibility study and a graphical illustration of the solution via CAD drawing. Through our in-house production of components, it is possible for us to configure the system to your individual requirements. This means, for example, that the electrode lengths or even the cable lengths can be exactly adapted to your needs. So, you only pay for what you actually require.



## DOCUMENTATION

- You receive a comprehensive instruction manual for every configured system. This includes information for all the individual components and for the interaction of all the components as a system. You will also receive technical drawings, and the documents and schedules for testing, maintenance, measurement, switching and connection.



## PRODUCTION

- After completing the configuration, almost all components are carefully made in-house for you by our qualified specialists. Any needed changes can be made quickly and efficiently at our own location. The benefit of this is extremely short delivery times and the guarantee that all of our products are "Made in Germany".



# Everything at a Glance

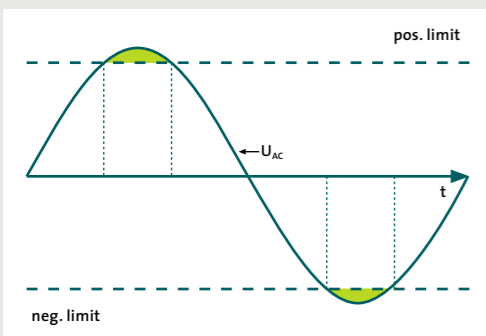
## Our Service Areas

With our product portfolio, we are able to offer you an optimal solution for process support in the areas of discharging, discharging in ATEX areas, and most recently, in the area of charging.



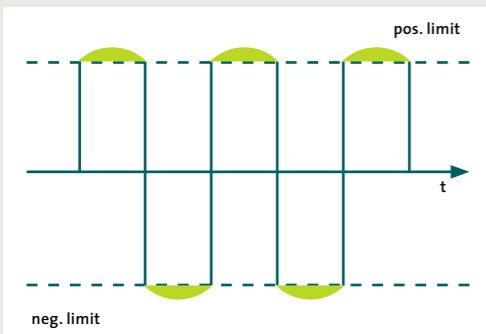
THE PRODUCT INFORMATION CAN BE FOUND ON THE FOLLOWING PAGES

## Comparison of Methods Illustrating the Benefits of the Patented KERSTEN Procedure



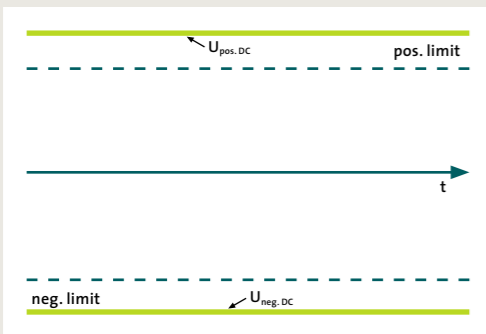
### DISCHARGING AC

- Discharge gaps in which no discharging takes place at all.
- Only ions of one polarity are provided between the gaps.
- i.e. discharge only at the time when the material is oppositely charged.



### DISCHARGING AC/DC PULSED

- Only ions of one polarity are provided between the gaps.
- No impact ionisation between the electrode needles.

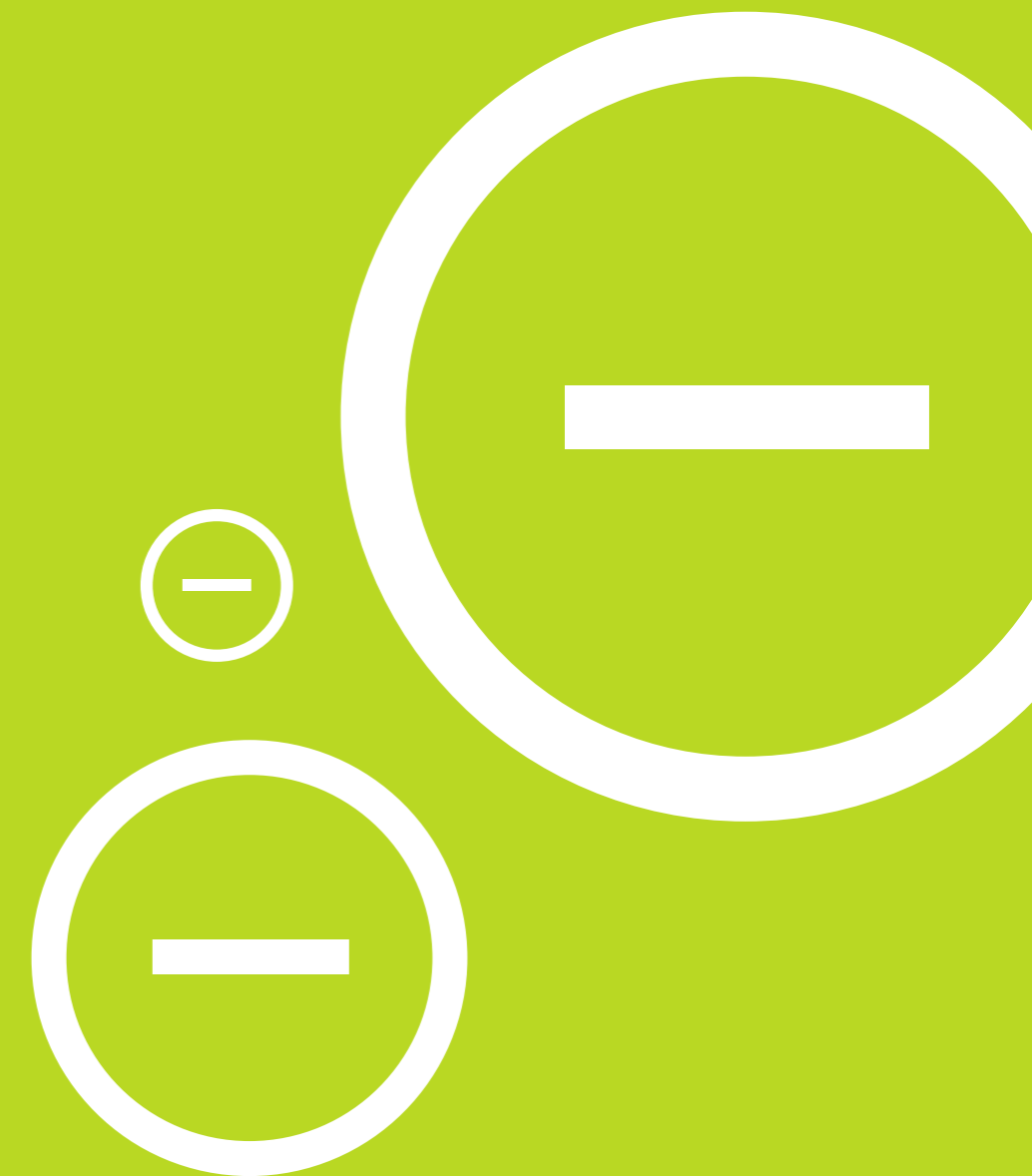


### PATENTED DC DISCHARGING BY KERSTEN ELEKTROSTATIK

- Constant supply of an ion reservoir of both polarities
- Maximum discharge power, regardless of the charge of the material
- Highest ion output amongst competitors

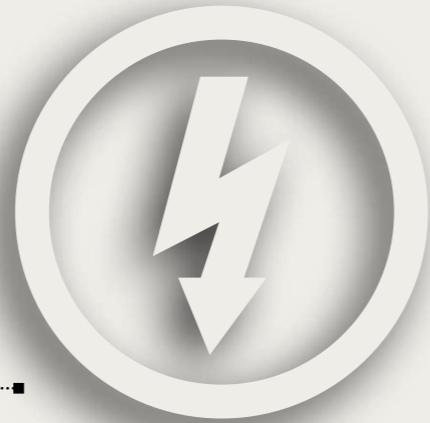
The patented discharging method optimally supports your processes compared to other commercially available methods. The process ensures a simultaneous and continuous ion supply of both polarities. This is independent of material properties or process speed. Thus, you are able to achieve the best possible results without the use of expensive measuring and control technology. This is because the required positive and negative ions are made available for discharging at all times without subsequent intervention on the material.

# DISCHARGING



The driving force  
for your discharge.

## Power Supply



*The high-voltage generators provide the electrical supply for all KERSTEN discharging components.*

At Kersten, you will find the most compact and most efficient high-voltage generator for electrostatic discharge in its class.

If you need high-voltage generators for large installations, you will find the right solution at Kersten – compact and expansion possibility via the high-voltage distributor.

### KERSTEN-PRODUCTS – YOUR BENEFITS

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Flexible expansion options
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free

### GENERAL NOTICE

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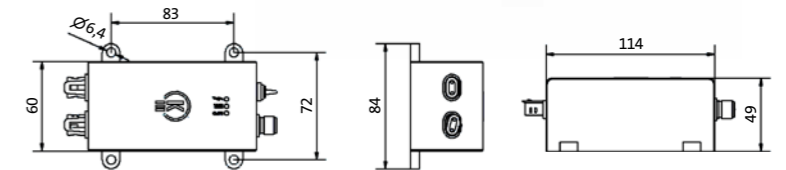


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

### DG 106

The driving force for your discharge. The high voltage generators provide the electrical supply for all KERSTEN discharging components. Error and maintenance information for components included.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- Highest output of ions
- Error & Cleaning Indicator

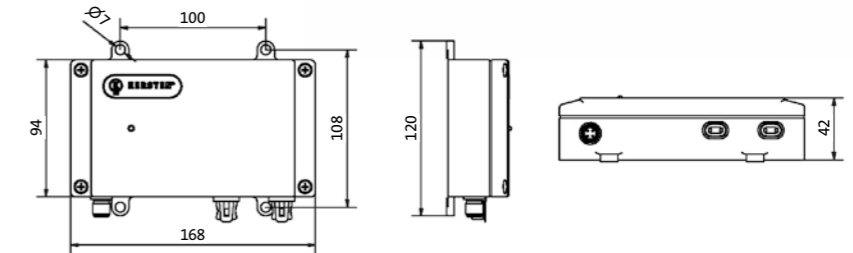


All dimensions in mm.

### DG 206

The driving force for your discharge. The high voltage generators provide the electrical supply for all KERSTEN discharging components. Error information for generator and components included.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- Highest output of ions

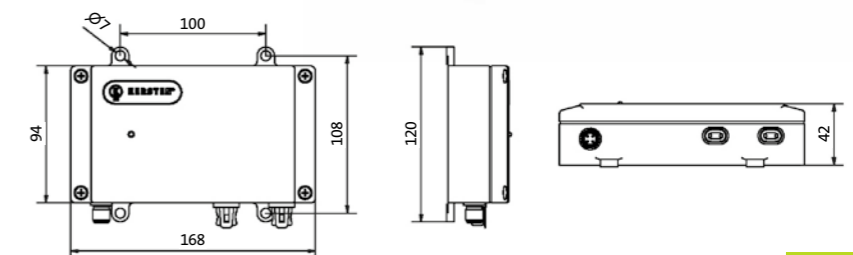


All dimensions in mm.

### DG 206 X (0-Offset)

The discharging generator DG 206 X (0-Offset) can be used to supply all the next® discharging components. The generator is designed for use in extreme conditions and for difficult materials.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- Highest output of ions

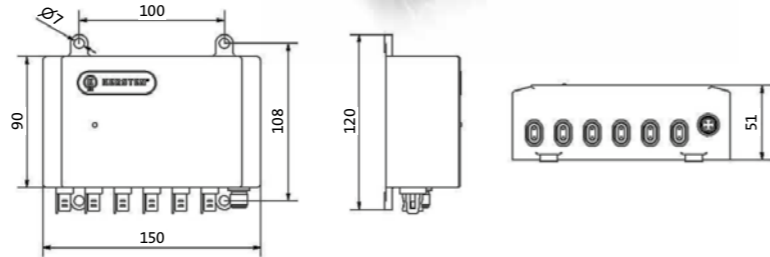


All dimensions in mm.

## DG 306

The driving force for your discharge. The high-voltage generators provide the electrical supply for all KERSTEN discharging components. Error information for generator and components is included.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- Highest output of ions
- 6 high voltage slots

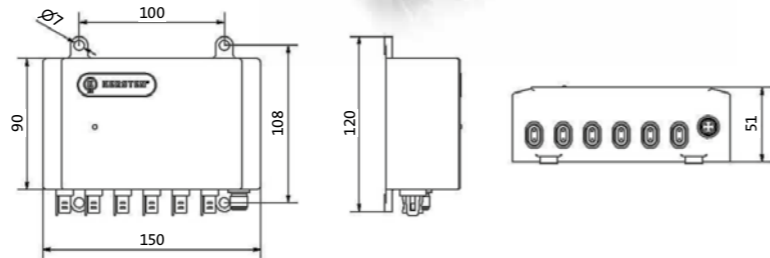


All dimensions in mm.

## DG 306 X (o-Offset)

The discharging generator DG 306 X (o-Offset) can be used to supply all the next® discharging components. The generator is designed for use in extreme conditions and for difficult materials.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- 6 high voltage slots

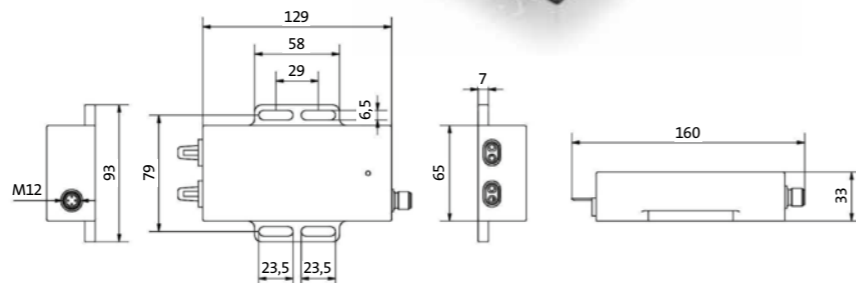


All dimensions in mm.

## DG 416

The driving force for your discharge. The high voltage generators provide the electrical supply for all KERSTEN discharging components.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- Error display
- Low weight

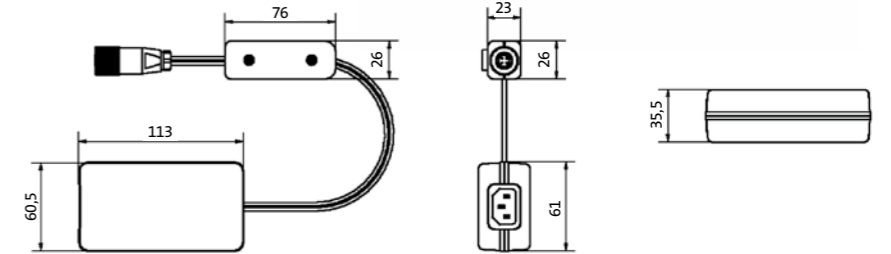


All dimensions in mm.

## AN 112

The power supply unit AN 112 is used to supply the discharging generator. The power supply unit has a switch where the connected generator can be turned on or off.

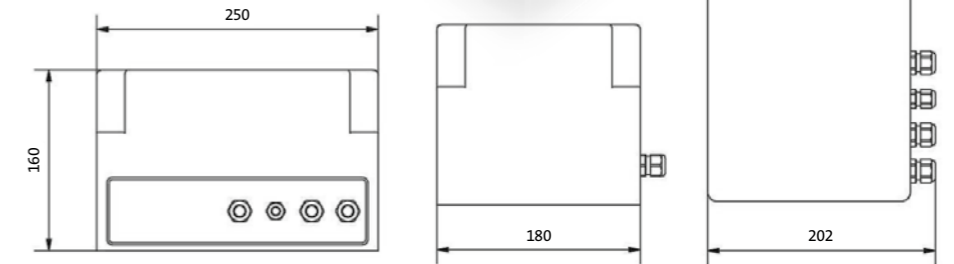
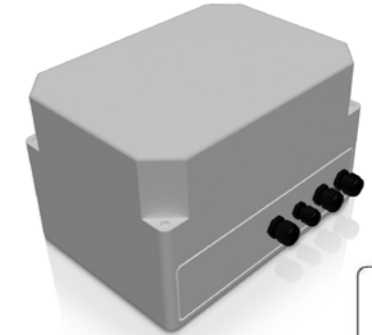
- Use in the absence of 24 V DC
- Supply voltage 115/230 V AC 50/60 Hz



All dimensions in mm.

## AN 204/214

The AN 204 mains unit offers a flexible power supply option.

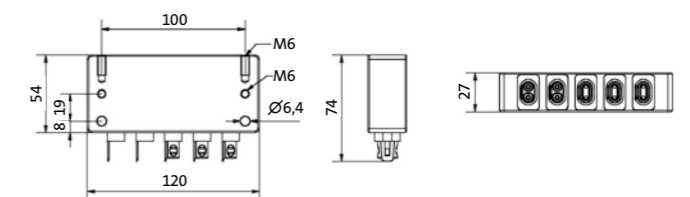
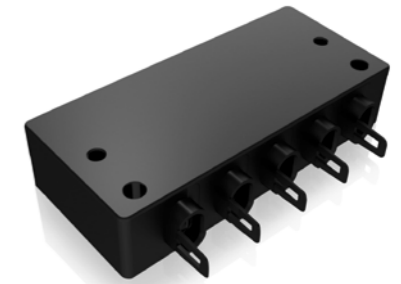


All dimensions in mm.

## DV 106

DV 106 serves as a link between the generator and discharge components. The system can be expanded due to its additional slots.

- Additional sockets
- Compact design
- Plug-in system

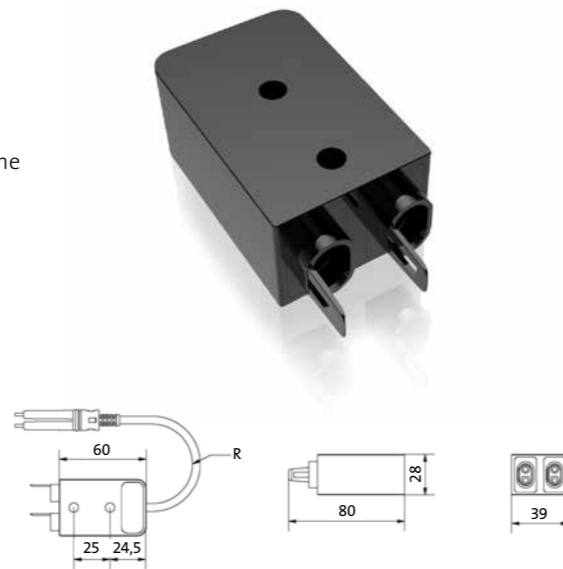


All dimensions in mm.

## DV 206

System with flexibility: The DV 206 high voltage distributor is the little brother of the DV 106, offering you the option of extending your existing discharge system by a further member of the KERSTEN neXt® product family.

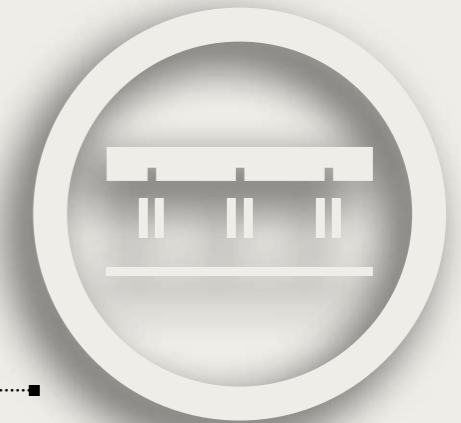
- Passive high voltage distributor
- Additional sockets
- Plug-in system



All dimensions in mm.

Small product,  
big effect.

## Electrodes



*The discharge electrodes by KERSTEN are the core component in order to control and neutralise electrostatic charges.*

Kersten offers, for example, an extremely compact discharging electrode with the world's smallest electrode cross-section.

Furthermore, you will find products for universal use or for specialized applications, such as: an adjustable air duct, a flush mounted structure or longer unsupported lengths.

### KERSTEN-PRODUCTS – YOUR BENEFITS

- Durable and robust due to GFRP
- Minimal maintenance / Maintenance free
- Safe to touch
- Continuous flow of ions

### LEGEND

H = Heat resistant  
L = with air support (fixed / adjustable)

### GENERAL NOTICE

Custom-made products and customer-specific adaptations are possible at any time if necessary.



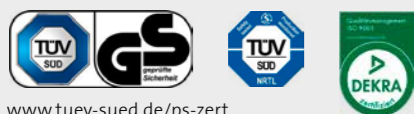
Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

TECHNICAL DATA			DG 106	DG 206	DG 306	DG 416
Supply voltage	$U_N$	V DC	24+-20%	24+-20%	24+-20%	24+-20%
Max. operating current	$I_B$	mA	630	630	630	300
Max. active power	P	W	15	15	15	8
Voltage error output	$U_f$	V DC	24+-20%	24+-20%	24+-20%	
Output voltage	$U_A$	kV DC	+3,8/-2,8	+3,8/-2,8	+3,8/-2,8	+4,5/-3,3
Max. output current	$I_{max}$	mA	0,9	0,9	0,9	0,3
Number of high-voltage slots			2	2	6	2
Weight	g		510	740	970	410

SUBJECTS TO TECHNICAL MODIFICATIONS.

### GENERAL ACCESSORIES

- Measuring Instruments: Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application
  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe
- Pneumatic Supply: The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings

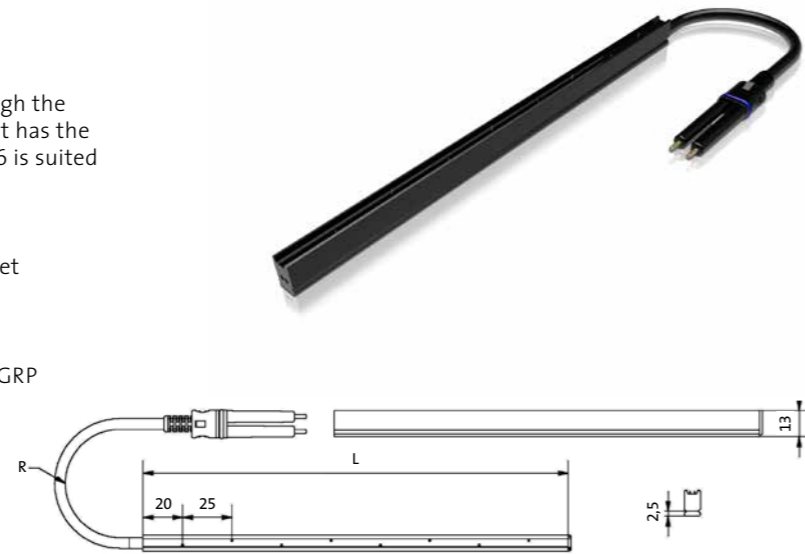




## DE 106

The smallest from the house of KERSTEN. Through the electrode's extremely slim design and because it has the smallest cross section on the market, the DE 106 is suited for the smallest of application spaces.

- Safe to touch
- Smallest electrode cross-section on the market
- Vacuum casted
- Customizable to the centimetre
- Installation in the smallest spaces
- Long lasting and durable through the use of GRP
- Minimal maintenance effort

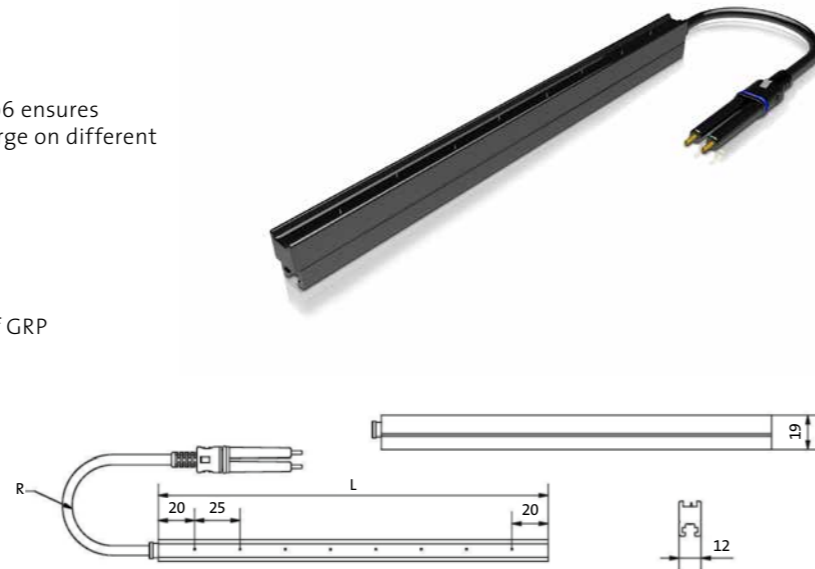


All dimensions in mm.

## DE 206 (L) (H)

Our most popular discharging electrode. DE 206 ensures the effective elimination of existing static charge on different materials and optimizes your process.

- Safe to touch
- Small electrode cross-section
- Vacuum casted
- Customizable to the centimetre
- Long lasting and durable through the use of GRP
- Minimal maintenance effort
- Plug-in system

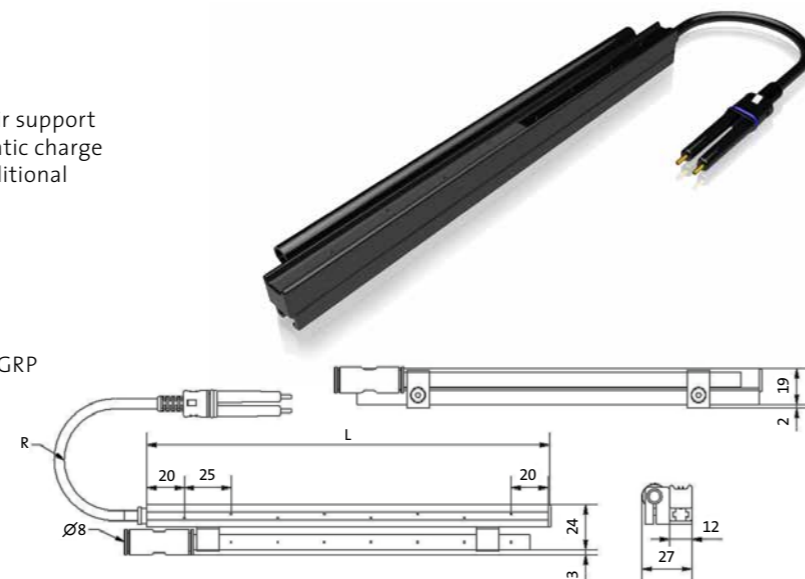


All dimensions in mm.

## DE 216 L

The DE 216 L with adjustable exit angle of the air support ensures the effective elimination of existing static charge over longer ranges and is able to achieve an additional cleaning effect.

- Safe to touch
- Small electrode cross-section
- Adjustable exit angle of the air support
- Customizable to the centimetre
- Long lasting and durable through the use of GRP
- Minimal maintenance effort
- Plug-in system

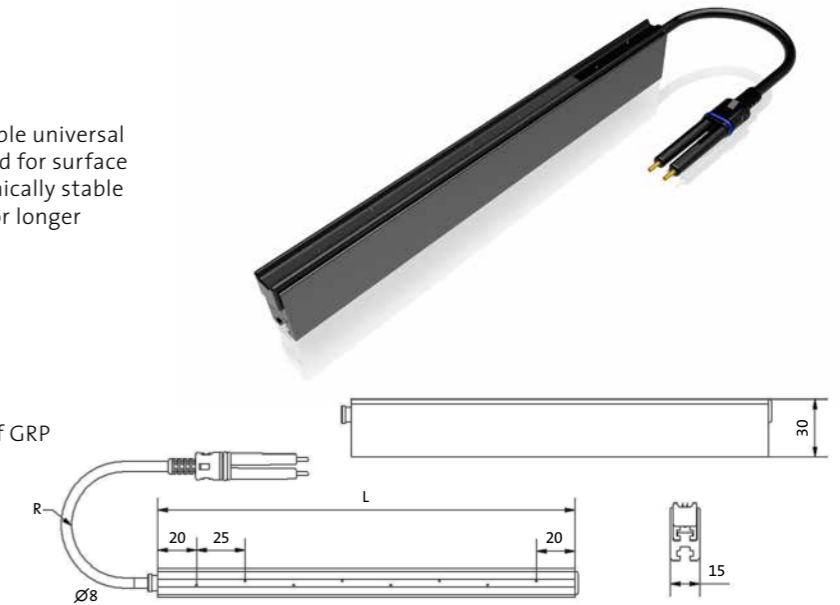


All dimensions in mm.

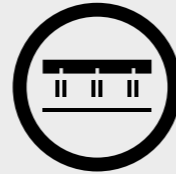
## DE 406 (L)

The DE 406 discharge electrode is a highly stable universal electrode for a variety of applications. It is used for surface discharging a variety of materials. The mechanically stable aluminium profile design renders it suitable for longer self-supporting distances.

- Safe to touch
- Longlife product
- Vacuum casted
- Customizable to the centimetre
- Customizable to individual lengths
- Long lasting and durable through the use of GRP
- Minimal maintenance effort
- Plug-in system



All dimensions in mm.



**ELECTRODES**

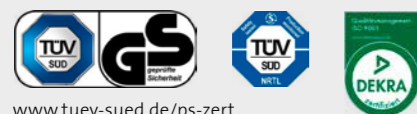
TECHNICAL DATA		DE 106	DE 206	DE 206 H	DE 206 L	DE 216 L	DE 406	DE 406 L
Number of points		3-33	3-121	3-121	3-121	3-121	39-159	39-159
Total length	mm	90-840	90-3040	30-3040	90-3040	90-1440	990-3990	990-3990
Effective range								
- optimal	mm	40-60	40-60	40-60	40-100	40-100	40-60	40-100
- possible	mm	30-300	30-300	30-300	30-400	30-400	30-300	30-400
Air consumption per m length at 0,2 to 1,0bar	m <sup>3</sup> /h				4,2-13,5	4,2-13,5		4,2-13,5
Outer material		GFK	GFK	GFK	GFK	GFK	GFK	GFK

SUBJECTS TO TECHNICAL MODIFICATIONS.

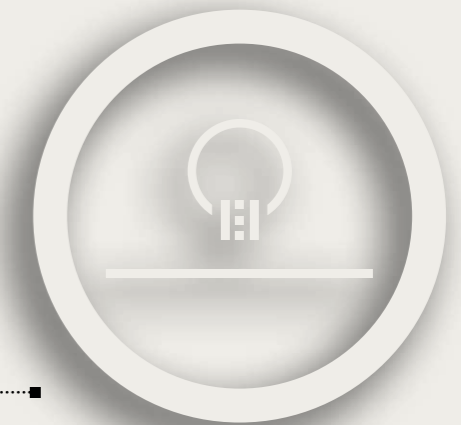
**GENERAL ACCESSORIES**

- Measuring Instruments:  
Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application
  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe

- Pneumatic Supply:  
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings



Brings air to the point.



**Nozzles**

*The discharge nozzles can be installed to pinpoint precision. It can also be used to replace existing nozzles without ionisation.*

Nozzles from Kersten can, for example: connect with existing articulated hose systems, are suitable for use in confined spaces, can be integrated into existing systems. You can also increase the nozzle operation via additional compressed air.

**KERSTEN-PRODUCTS – YOUR BENEFITS**

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions

**GENERAL NOTICE**

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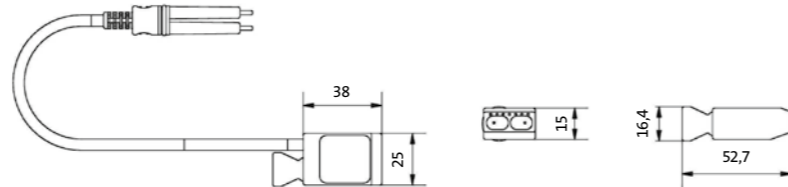


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

## DD 106 (A)

The DD 106 discharge nozzles in the neXt® product family are designed to fit existing ball heads of 1/4" Ariana articulated hoses. This means that you may, for instance, extend your existing articulated hose system by adding deionising functionality.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

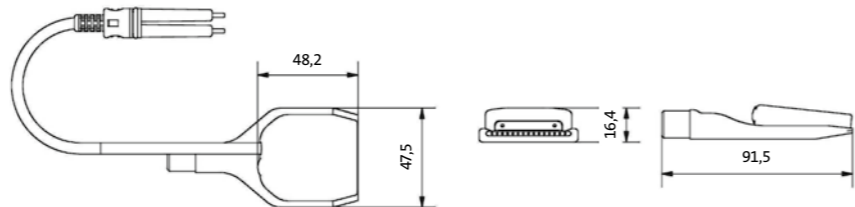


All dimensions in mm.

## DD 206 (A)

The DD 206 and DD 206 (A) discharging nozzles are flow-optimised. A greater electrostatic discharge reach and cleaning effect on the material to be discharged may be achieved with the additional support of compressed air. Air connection is provided via a G1/4" female thread.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

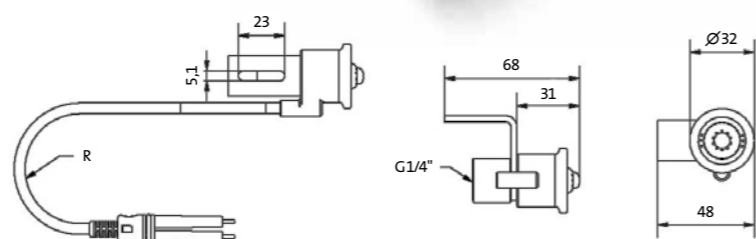


All dimensions in mm.

## DD 406 (A)

The discharging nozzle DD 406 has a compact design as well as an air outlet that is focused to a point. It has optimized flow as well as having low-noise. The DD 406 optimally discharges all materials with high efficiency, even with low pressure. Air connection is provided by an existing internal thread of G1/4".

- Flow-optimised
- Compact design
- Improvement of processes
- Continuous flow of ions
- Low noise
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

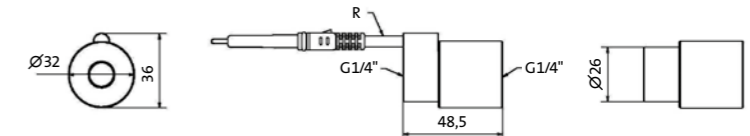


All dimensions in mm.

## DD 606

The DD 606 discharge nozzle is used for electrostatic extension of existing air nozzles. Combined with a DD 606, these may be upgraded to a fully-fledged discharge assembly. The air connection may be customised using various adapters. The air connection is provided via push-on connectors.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Various adapters usable
- Easy to install
- Suitable for your compressed air supply
- Maintenance free



All dimensions in mm.



**NOZZLES**

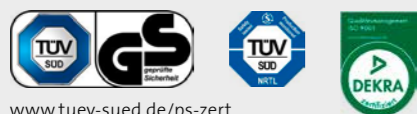
TECHNICAL DATA		DD 106 (A)	DD 206 (A)	DD 406 (A)	DD 606
Number of points		2	2	6	8
Articulated hose interior-Ø	mm	6,5	12,5	12,5	G 1/4
Effective range					
- optimal	mm	10-60	10-80	10-100	10-100
- possible	mm	10-100	10-150	10-300	10-1000
Air consumption per m length at 0,2 to 1,0bar	m <sup>3</sup> /h	2,3-5,7	3,5-8,4	3,0-7,3	3,7-9,5
Air supply p (oil-, water-, dust-free)	bar	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5

SUBJECTS TO TECHNICAL MODIFICATIONS.

**GENERAL ACCESSORIES**

- Measuring Instruments:  
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  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe

- Pneumatic Supply:  
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings



Point-precise and clever.



**Heads**

*The discharging heads can be installed to pinpoint precision and can also be combined with existing nozzles without ionisation.*

The heads can be used for the discharge of various materials. Due to their compact design, they can also be used in small spaces and can also be affixed onto articulated hoses or flat nozzles using a variety of mounts.

**KERSTEN-PRODUCTS – YOUR BENEFITS**

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions

**GENERAL NOTICE**

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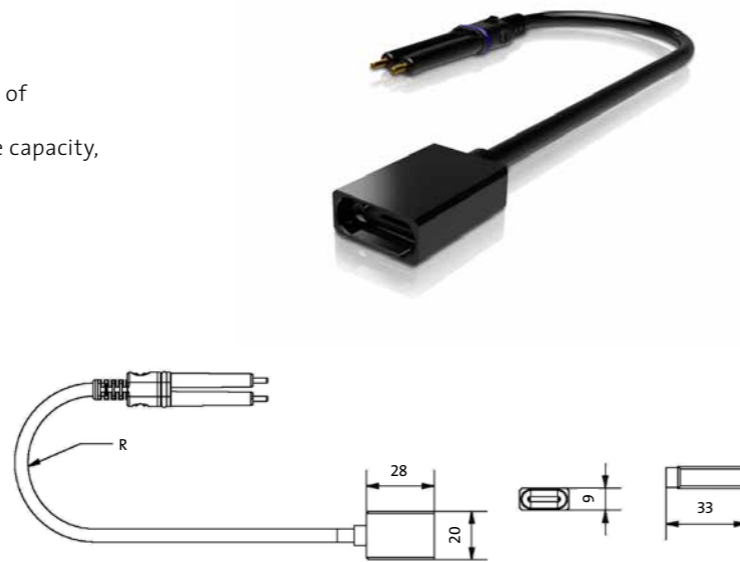


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

**DK 106**

The discharging head DK 106 ensures the elimination of electrostatic charges on a wide variety of materials. DK 106 distinguishes itself through its high discharge capacity, variable positioning, and slim construction depth.

- Compact design
- Patented bipolar DC High Voltage
- Continuous flow of ions
- Excellent cleaning results
- Improvement of processes

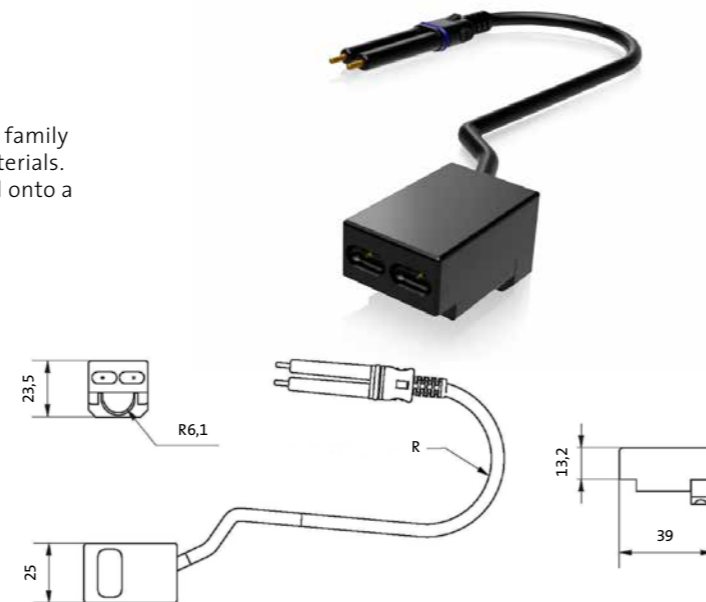


All dimensions in mm.

**DK 206**

Discharging head DK 206 of the KERSTEN neXt® product family eliminates electrostatic charges on a wide variety of materials. Through the clamp mounting, the DK 206 can be affixed onto a tube with a diameter of up to 12mm

- Compact design
- Patented bipolar DC High Voltage
- Continuous flow of ions
- Excellent cleaning results



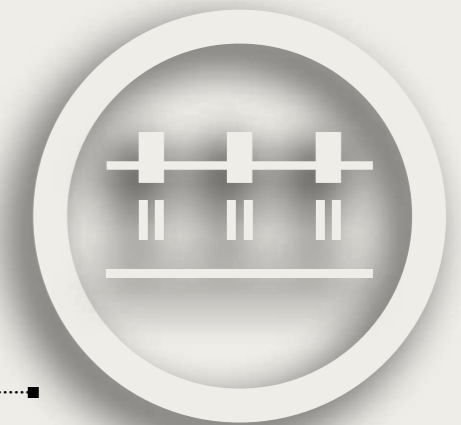
All dimensions in mm.

**GENERAL ACCESSORIES**

- Measuring Instruments: Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application
  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe
- Pneumatic Supply: The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings

# Individuality in the ranks.

## Rows



*The Kersten discharge lines offer a variety of combinations.*

The Kersten neXt® discharging rows offer you many benefits through their flexible adjustment options. They can be used, for example, in air-assisted separation of materials and can be used flexibly.

Furthermore, you will also find a Kersten discharging row for discharging and cleaning hollow parts such as PET bottle blanks.

**KERSTEN-PRODUCTS – YOUR BENEFITS**

- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions
- Individual configurations possible

**LEGEND**

M = with charging, N = without charging  
Both versions can be combined in a row.

**GENERAL NOTICE**

Custom-made products and customer-specific adaptations are possible at any time if necessary.

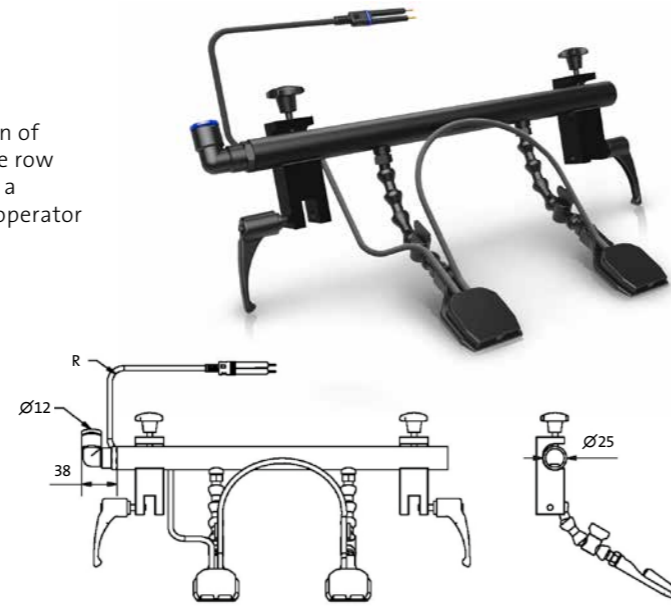


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

## DR 206

The DR 206 discharge row offers air supported separation of materials, such as sheets in offset printing. The discharge row comprises several discharge nozzles mounted to slide on a carrier pipe. The air supply is centrally adjustable by the operator and each nozzle is also individually adjustable.

- Variable adjustment options
- Multiple air flow customization options
- Suited for very fast processes
- Example: Assures smooth sheet run

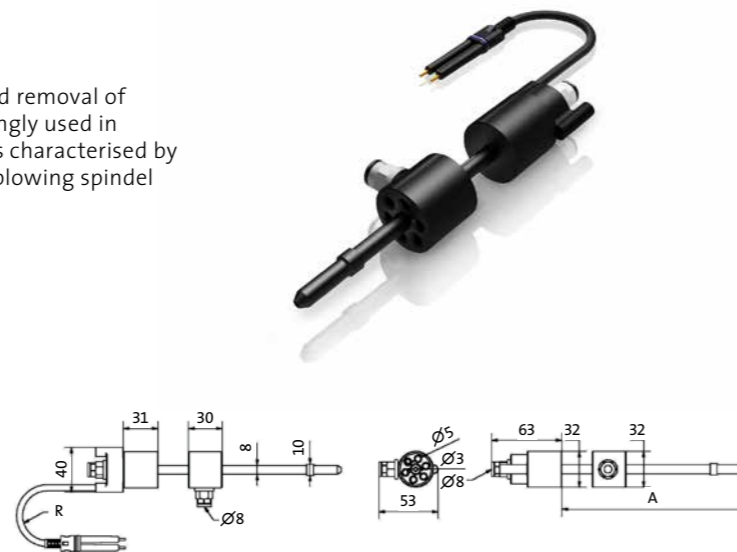


All dimensions in mm.

## DR 606

The DR 606 discharging row is used for air-supported removal of dirt particles in closed containers which are increasingly used in the food and pharmaceutical industry. The DR 606 is characterised by a safe-to-touch discharging head, an exchangeable blowing spindel and an optional suction system.

- Easy cleaning of hollow objects
- Integrable solution
- Small design
- Minimal maintenance effort
- Suitable for your compressed air supply
- Continuous flow of ions
- Plug-in system



All dimensions in mm.

Discharging  
with accuracy.

## Discharging Pistol



*The discharging guns are ideally suited for the discharge of substrates and for blowing off dirt. They are distinguished by their high efficiency, even at low pressure.*

Thus, the hand-operated discharging of substrates and the blowing off of the dirt is made simple and efficient. It is even achieved at low pressure via the focused and pointed air outlet

### KERSTEN-PRODUCTS – YOUR BENEFITS

- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions
- Plug-in system

### GENERAL NOTICE

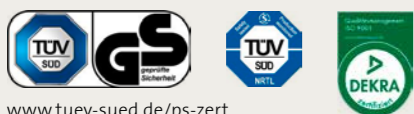
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Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

### GENERAL ACCESSORIES

- Measuring Instruments:  
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  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe
- Pneumatic Supply:  
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings

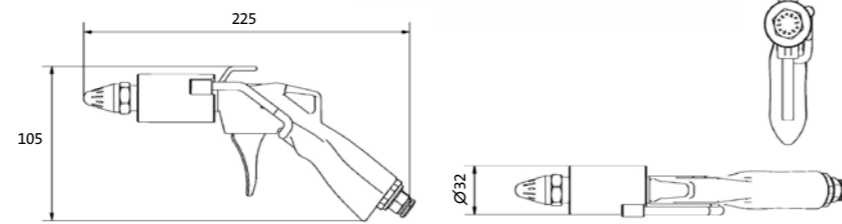


## DP 106

The new discharging pistol from KERSTEN.  
The DP 106 is best suited for mobile and flexible use on diverse material and surfaces at your site.

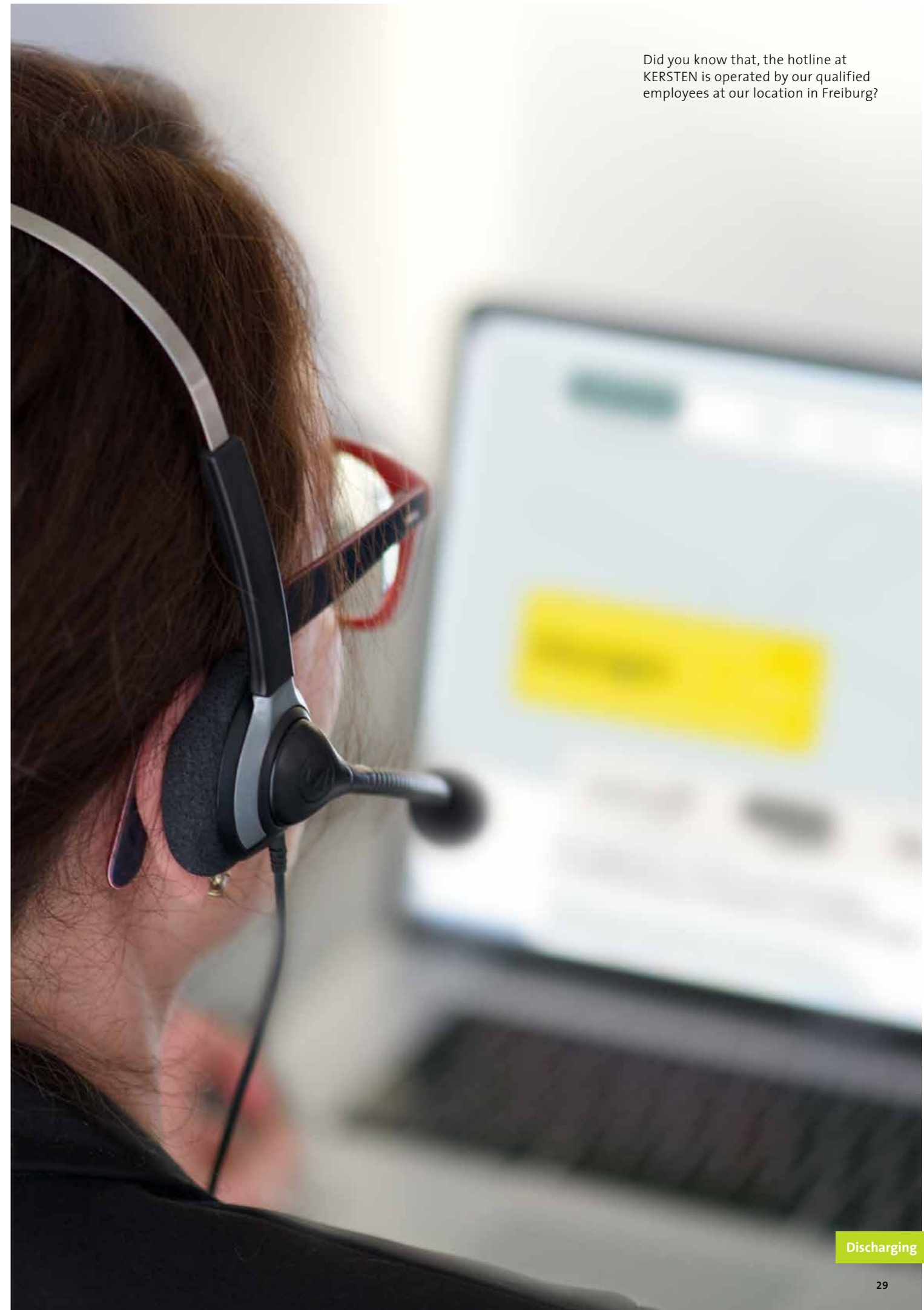
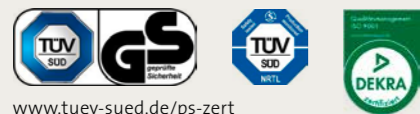
- Excellent cleaning results
- Safe to touch
- Easy to use
- Plug-in system
- Suitable for a wide range of applications
- Fits to your compressed air supply
- Easy to install
- Continuous flow of ions

All dimensions in mm.



### GENERAL ACCESSORIES

- **Measuring Instruments:**  
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  - Digital multimeter
  - High voltage probe
- **Pneumatic Supply:**  
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  - Compressor
  - Air fittings



Did you know that, the hotline at KERSTEN is operated by our qualified employees at our location in Freiburg?

Did you know that for every KERSTEN product that you order, you will receive comprehensive documentation?

KERSTEN

Documentation

## ATEX ZONES



KERSTEN



The driving force  
for your discharge.

## Power Supply



*The high-voltage generators and distributors provide the appropriate electrical supply for all Kersten discharging components.*

At Kersten, you're able to find the most compact and most efficient high-voltage generator in its class for electrostatic discharge in ATEX (explosion protected) areas.

It can be used to supply all Kersten EX-discharging components. For large installations, the DG 306 (EX) with 6 high-voltage connections can be used in ATEX areas.

### KERSTEN-PRODUCTS – YOUR BENEFITS

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Flexible expansion options
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free

### GENERAL NOTICE

Custom-made products and customer-specific adaptations are possible at any time if necessary.



**Power supply components / generators must be installed outside the explosion-hazardous zones.**

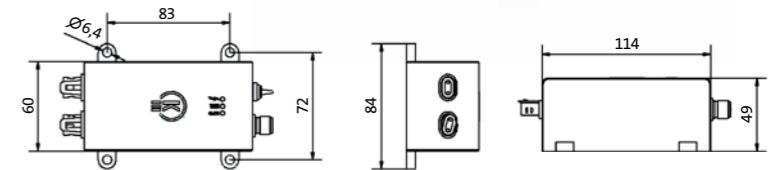


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

### DG 106 (EX)

The DG 106 EX high voltage generator is one of the latest discharge generator in the KERSTEN neXt® product family and supplies all KERSTEN neXt® ATEX discharge assemblies. It is one of the most compact but also most powerful high voltage generator in its class for electrostatic discharging. Nevertheless, he provides a wide range of technical features.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- Continuous flow of ions
- Error and cleaning indicator

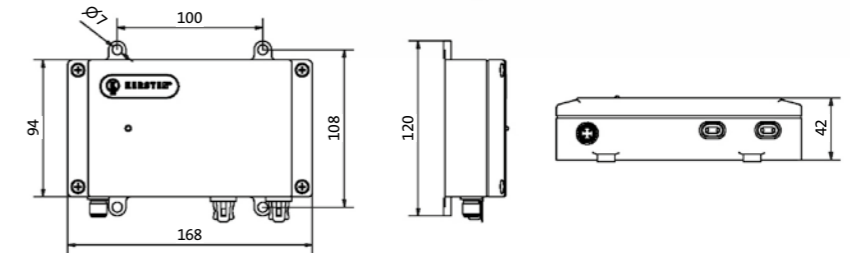


All dimensions in mm.

### DG 206 (EX)

The driving force for your discharge. The high-voltage generators provide the electrical supply for all KERSTEN discharging components. With error display for generator and components.

- Patented bipolar DC High Voltage
- Compact Design
- Plug-in system
- Continuous flow of ions

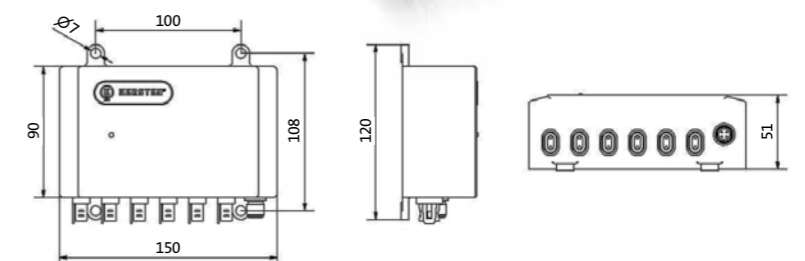


All dimensions in mm.

### DG 306 (EX)

The discharging generator DG 306 (EX) is the power pack of the KERSTEN next product family and can be used to supply all the ATEX-discharging components. With its 6 High voltage connections he can easily manage every large installation, nevertheless it is very compact.

- 6 High-voltage Slots
- Error message and error display during short-circuit
- High-voltage is touch-safe
- Flexible expansion options
- DC Discharging for more power



All dimensions in mm.



**POWER SUPPLY**

TECHNICAL DATA			DG 106 EX	DG 206 EX	DG 306 EX
Supply Voltage	$U_N$	V DC	24+-20%	24+-20%	24+-20%
Max. operating current	$I_B$	mA	630	630	630
Max. active power	P	W	15	15	15
Error output voltage	$U_f$	V DC	24+-20%	24+-20%	24+-20%
Max. output voltage	$U_A$	kV DC	+3,8/-2,8	+3,8/-2,8	+3,8/-2,8
Max. output current	$I_{max}$	mA	0,9	0,9	0,9
Number of high-voltage slots			2	2	6
Weight	g		510	740	970

SUBJECTS TO TECHNICAL MODIFICATIONS.

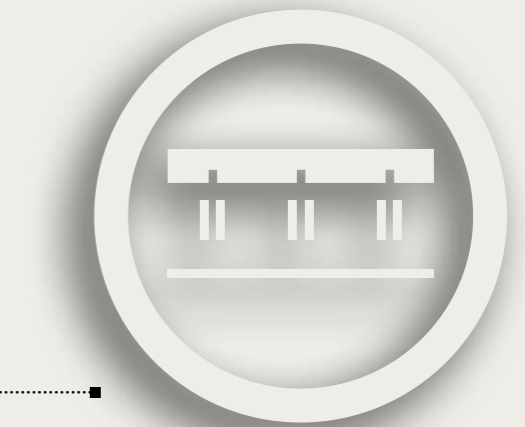
**GENERAL ACCESSORIES**

- Measuring Instruments:  
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  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe

- Pneumatic Supply:  
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings



Small product,  
big effect.



**Electrodes**

*Based on the proven discharging electrodes, you can also find electrodes for ATEX (explosion protected) areas which effectively eliminate existing charge on different materials. This will optimize your processes.*

The electrodes for ATEX areas are also available with air-assistance, adjustable air canal and for longer unsupported lengths.

**KERSTEN-PRODUCTS – YOUR BENEFITS**

- Durable and robust due to GFRP
- Minimal maintenance / Maintenance free
- Safe to touch
- Highest output of ions

**LEGEND**

H = Heat resistant  
L = with air support (fixed / adjustable)

**GENERAL NOTICE**

Custom-made products and customer-specific adaptations are possible at any time if necessary.

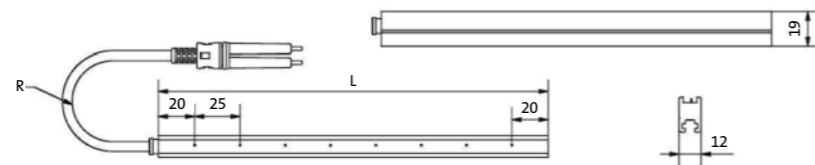


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

## DE 206 (L) (H) Ex

Our discharging electrode for explosion-hazardous zones. Even in this environment, the DE 206 (EX) ensures the effective elimination of existing static charge on different materials and optimizes your processes.

- Safe to touch
- Smallest electrode cross-section on the market
- Vacuum casted
- Customizable to the centimetre
- ATEX approval acc. to  $\text{Ex II (2) D 80}^\circ\text{C}$  and  $\text{Ex II (2) G IIB T6}$
- Long lasting and durable through the use of GRP
- Minimal maintenance effort
- Plug-in system

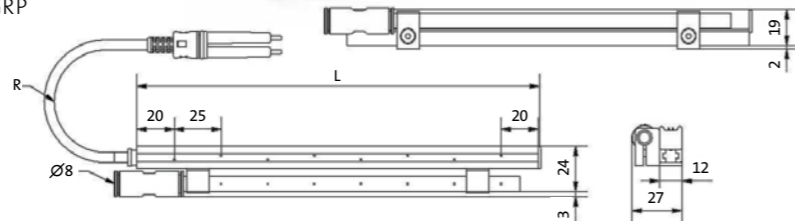


All dimensions in mm.

## DE 216 L Ex

The DE 216 L KERSTEN neXt® discharge electrode is a universal electrode for ATEX zones and a variety of applications with supporting air. It is used for surface discharging a variety of materials.

- Safe to touch
- Small electrode cross-section
- Adjustable exit angle of the air support
- Customizable to the centimetre
- ATEX approval acc. to  $\text{Ex II (2) D 80}^\circ\text{C}$  and  $\text{Ex II (2) G IIB T6}$
- Long lasting and durable through the use of GRP
- Minimal maintenance effort
- Plug-in system

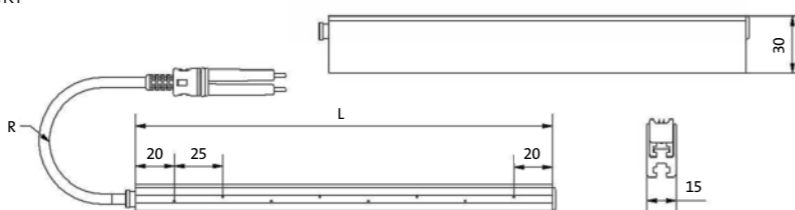


All dimensions in mm.

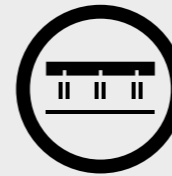
## DE 406 (L) Ex

Our longest discharging electrode. The DE 406 ensures effective elimination of existing static charge at a length of up to 4 metres.

- Safe to touch
- Extremely stable due to aluminium profile
- Vacuum casted
- Customizable to the centimetre
- ATEX approval acc. to  $\text{Ex II (2) D 80}^\circ\text{C}$  and  $\text{Ex II (2) G IIB T6}$
- Customizable to individual lengths
- Long lasting and durable through the use of GRP
- Minimal maintenance effort
- Plug-in system



All dimensions in mm.



## ELECTRODES

TECHNICAL DATA		DE 206 EX	DE 206 L EX	DE 216 L EX	DE 406 EX
Number of points		3-121	3-121	3-121	39-159
Total length	mm	90-3040	90-3040	90-1440	990-3990
Effective range					
- optimal	mm	40-60	40-100	40-100	40-60
- possible	mm	30-300	30-400	30-400	30-300
Air consumption per m length at 0,2 to 1,0bar	m <sup>3</sup> /h		4,2-13,5	4,2-13,5	
Outer material		GFK	GFK	GFK	ALU/GFK

SUBJECTS TO TECHNICAL MODIFICATIONS.

## GENERAL ACCESSORIES

- Measuring Instruments:  
Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application
  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe

- Pneumatic Supply:  
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings



Brings Air  
to the Point.

## Nozzles



*The ATEX discharge nozzles can be installed to pinpoint precision.  
Can also be used to replace existing nozzles without ionisation.*

Kersten nozzles for ATEX areas can be connected to existing articulated hose systems. In addition, you can also use them in confined spaces, increase nozzle operation with additional compressed air or integrate them into an existing system at a later time.

### KERSTEN-PRODUKTE – IHR NUTZEN

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions

### GENERAL NOTICE

Custom-made products and customer-specific adaptations are possible at any time if necessary.

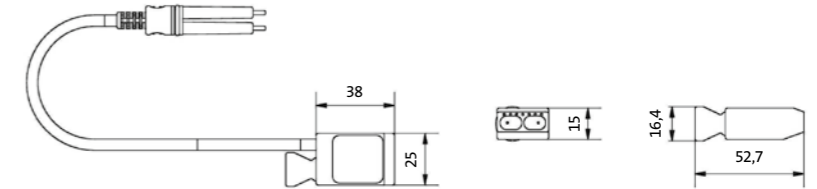


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

### DD 106 (A) (EX)

The DD 106 (EX) discharge nozzles for ATEX zones in the neXt® product family are designed to fit existing ball heads of 1/4" Ariana articulated hoses. This means that you may, for instance, extend your existing articulated hose system by adding deionising functionality.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

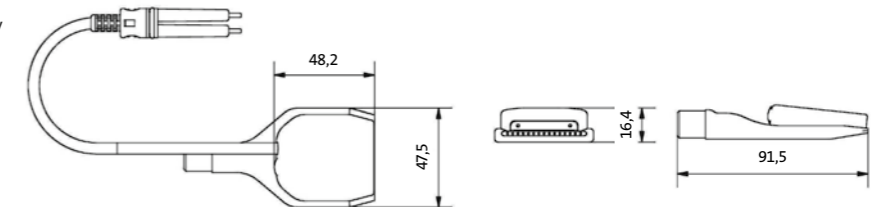


All dimensions in mm.

### DD 206 (A) (EX)

The DD 206 (EX) and DD 206 (EX)(A) discharging nozzles for ATEX zones are flow-optimised. A greater electrostatic discharge reach and cleaning effect on the material to be discharged may be achieved with the additional support of compressed air. Air connection is provided via a G1/4" female thread.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

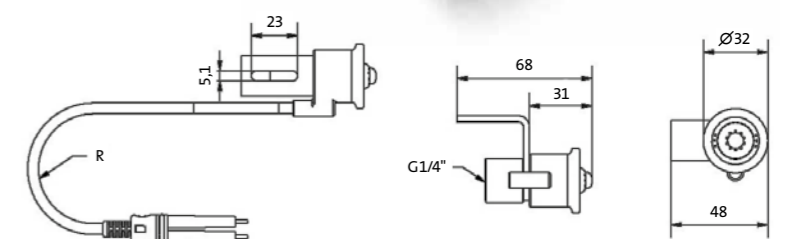


All dimensions in mm.

### DD 406 (A) (EX)

The DD 406 (EX) and DD 406 (EX)(A) discharge nozzles for ATEX zones in the neXt® product family are characterised by their short design and a bundled circular air discharge. All materials are optimally discharged thanks to the flow-optimised and low-noise blow nozzle, even at low pressure.

- Flow-optimised
- Compact design
- Improvement of processes
- Continuous flow of ions
- Low noise
- Easy to install
- Suitable for your compressed air supply
- Maintenance free

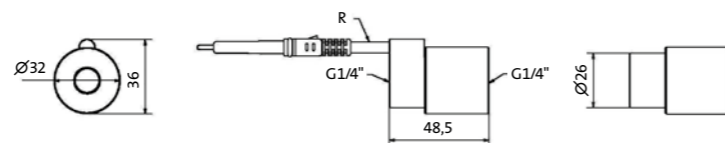


All dimensions in mm.

## DD 606 (EX)

The DD 606 (EX) is used for plug-in integration.  
The air connection may be customised using various adapters.  
The air connection is provided via plug-in connectors.

- Compact design
- Improvement of processes
- Continuous flow of ions
- Variable connection options
- Easy to install
- Suitable for your compressed air supply
- Maintenance free



All dimensions in mm.

# Point-precise and clever.

## Heads



*The ATEX discharging heads can be installed to pinpoint precision.*

The heads can be used in ATEX areas for the discharging of various materials. In addition, they are also optimal for small spaces due to their compact profile, and can be affixed to articulated hoses or flat nozzles using various mounts.

### KERSTEN-PRODUCTS – YOUR BENEFITS

- Plug-in system
- Easy assembly
- Installation in tight spaces
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Suitable for your compressed air supply
- Continuous flow of ions

### GENERAL NOTICE

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Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

TECHNICAL DATA		DD 106 EX (A)	DD 206 EX (A)	DD 406 EX (A)	DD 606 EX
Number of points		2	2	6	8
Articulated hose interior-Ø	mm	6,5	12,5	12,5	G 1/4
Effective range					
- optimal	mm	10-60	10-80	10-100	10-100
- possible	mm	10-100	10-150	10-300	10-1000
Air consumption per m length at 0,2 to 1,0bar	m <sup>3</sup> /h	2,3-5,7	3,5-8,4	3,0-7,3	3,7-9,5
Air supply p (oil-, water-, dust-free)	bar	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5

SUBJECTS TO TECHNICAL MODIFICATIONS.

### GENERAL ACCESSORIES

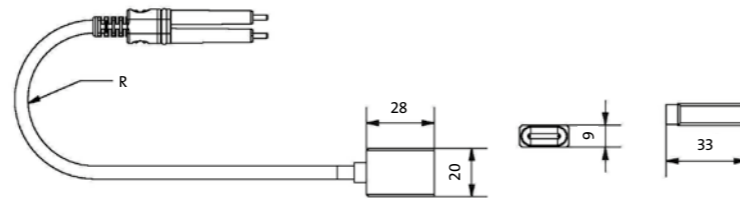
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  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe
- Pneumatic Supply: The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings



## DK 106 (EX)

The DK 106 (EX) discharge head in the KERSTEN neXt® product family serves to eliminate electrostatic charge on a variety of materials in ATEX zones. It is generally used where a variable position is necessary in addition to high discharge performance. Its small design allows installation in confined spaces.

- ATEX approval acc. to  $\text{Ex II (2) D 80}^\circ\text{C}$  and  $\text{Ex II (2) G IIB T6}$
- Full power in the smallest space
- Flexible installation options

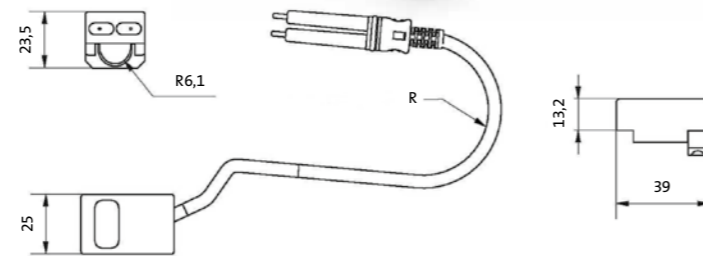


All dimensions in mm.

## DK 206 (EX)

The discharging head DK 206 (EX) of the KERSTEN neXt® product family eliminates electrostatic charges on a wide variety of materials. Through the clamp mounting, the DK 206 (EX) can be affixed onto a tube with a diameter of up to 12mm.

- ATEX approval acc. to  $\text{Ex II (2) D 80}^\circ\text{C}$  and  $\text{Ex II (2) G IIB T6}$
- Full power in the smallest space
- Flexible installation options



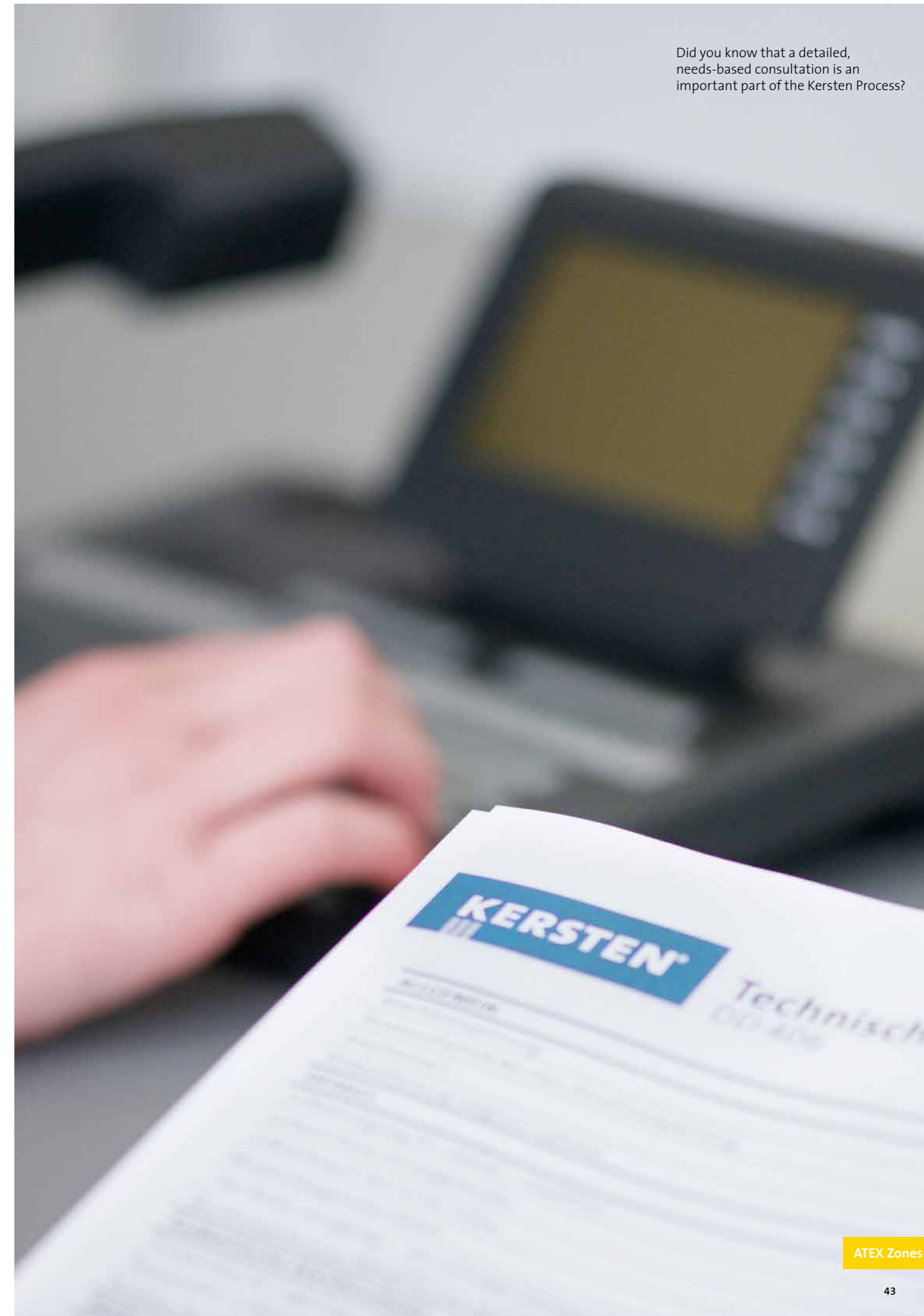
All dimensions in mm.

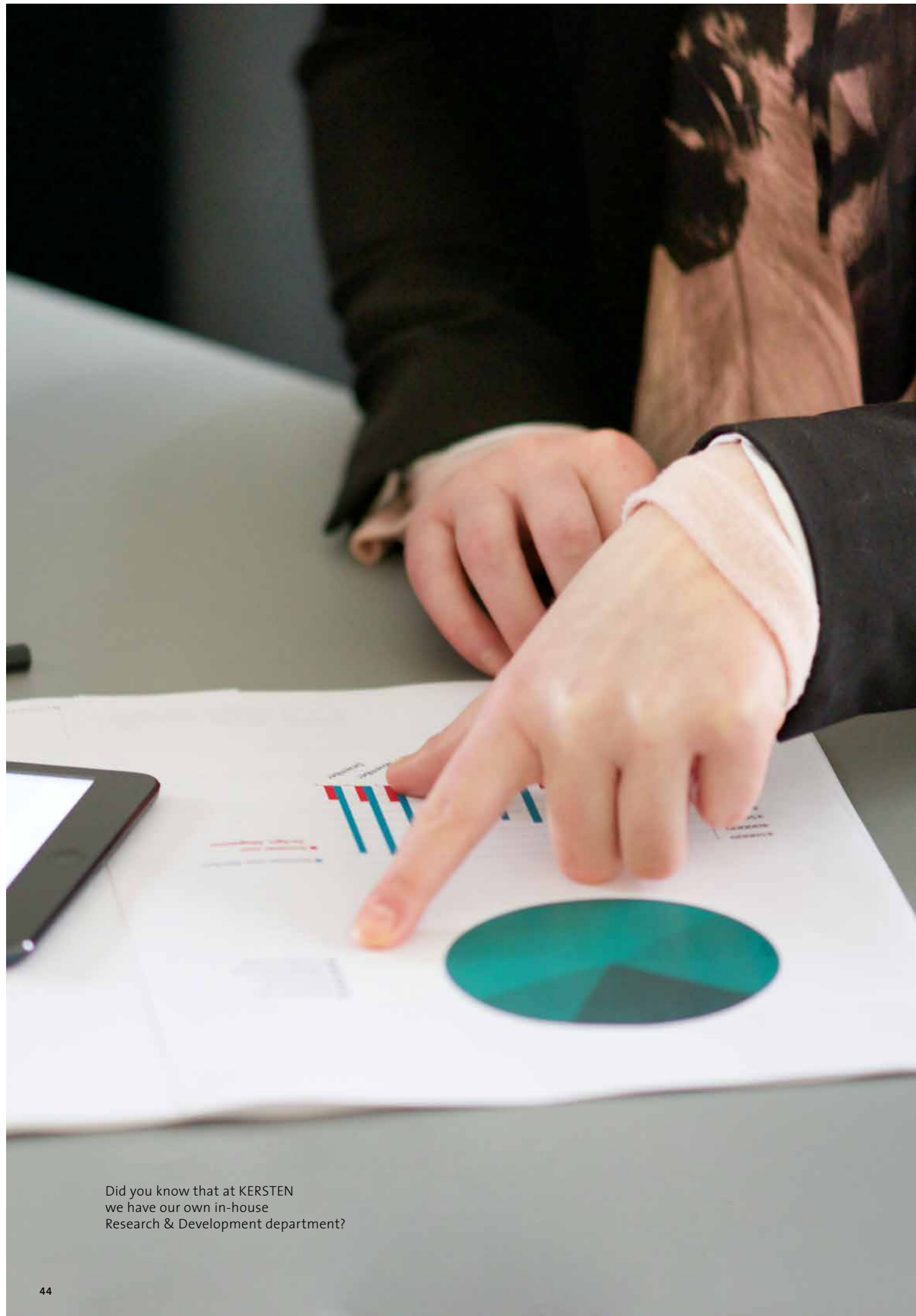
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  - Air fittings



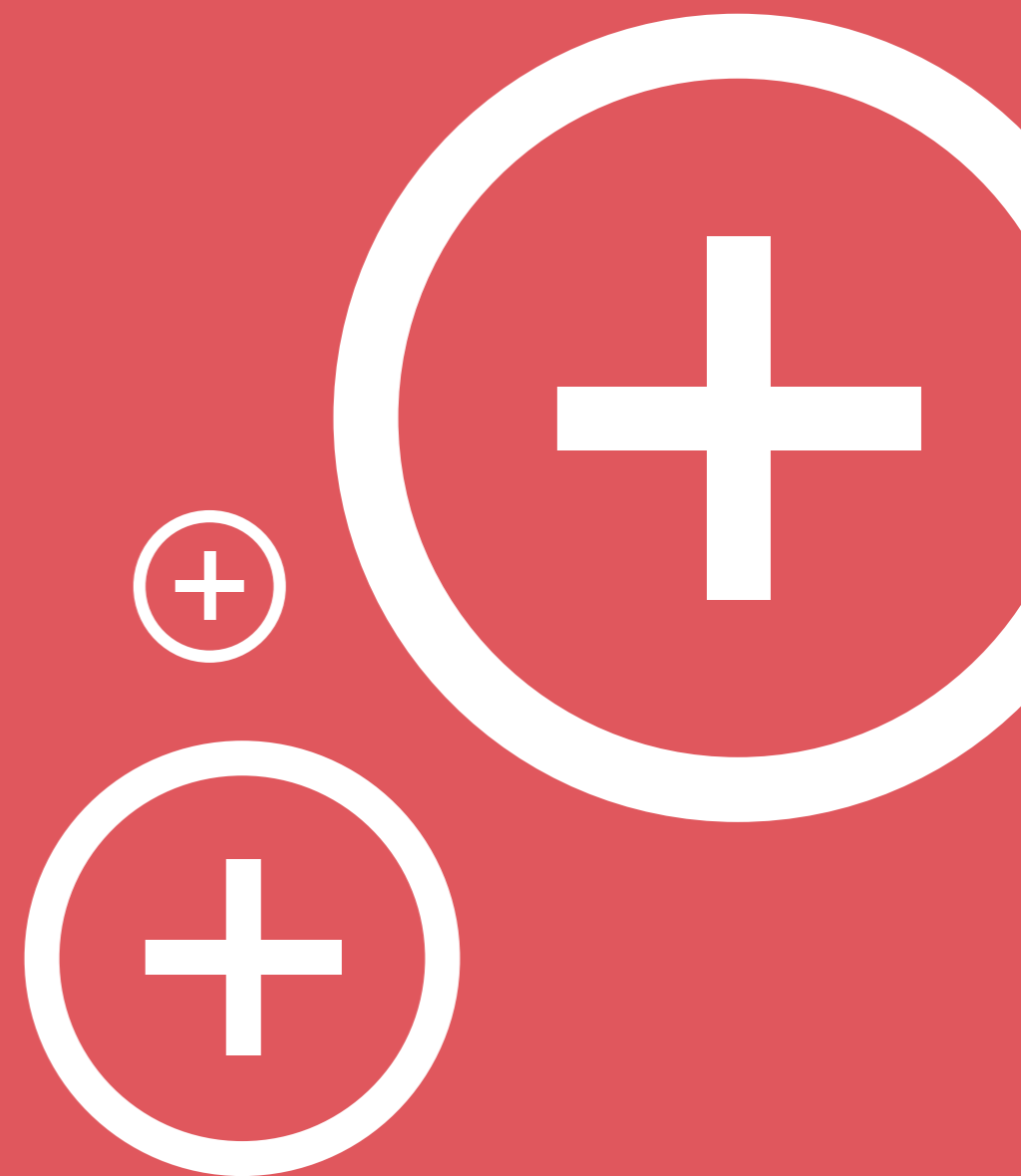
Did you know that a detailed, needs-based consultation is an important part of the Kersten Process?





Did you know that at KERSTEN  
we have our own in-house  
Research & Development department?

## CHARGING



The driving force  
for your discharge.

## Power Supply



*The high-voltage generators provide the appropriate electrical supply with the necessary polarity for all Kersten charging components.*

This holds true regardless of the world's varying mains voltage standards. Connect up to 4 charging components with the generators and get the benefits of charging without compromises.

### KERSTEN-PRODUCTS – YOUR BENEFITS

- Plug-in system
- Easy assembly
- Suitable for various application areas
- No EMC problems
- Minimal maintenance / Maintenance free
- Additional connectable discharging generator

### GENERAL NOTICE

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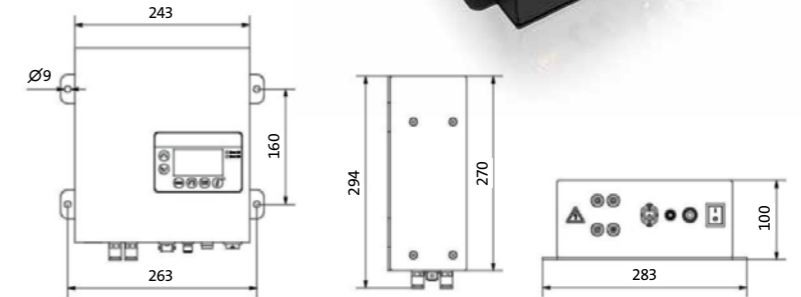


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

### CG 102

The charging generator CG 102 optimally supplies every charging component of KERSTEN Electrostatik. It delivers a regulated (digital PID control) output voltage of maximum +25kV.

- Interface function
- Simple operation via keypad
- Additional supply of discharging generator
- Settings storable
- Connectable to control stand



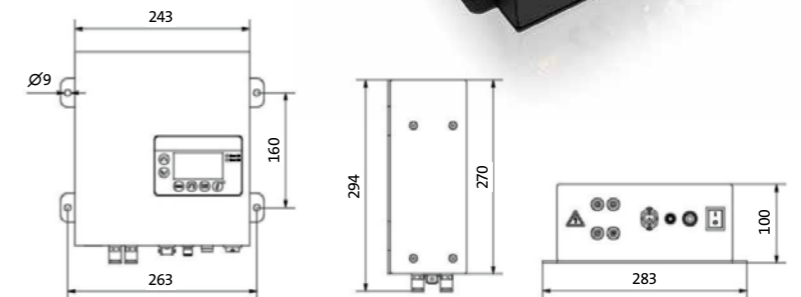
All dimensions in mm.



### CG 202

The charging generator CG 202 optimally supplies every charging component of KERSTEN Electrostatik. It delivers a regulated (digital PID control) output voltage of maximum -25kV.

- Interface function
- Simple operation via keypad
- Additional supply of discharging generator
- Settings storable
- Connectable to control stand



All dimensions in mm.



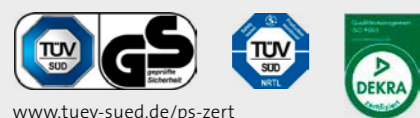




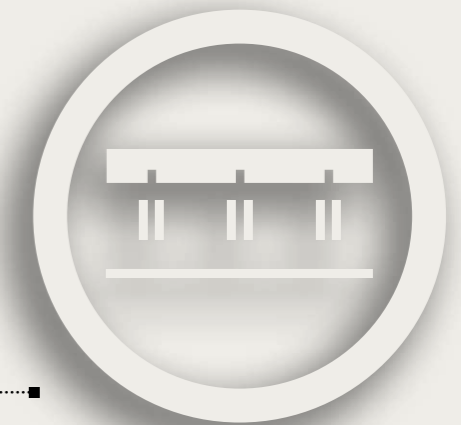
**POWER SUPPLY**

TECHNICAL DATA			CG 102	CG 202
Supply voltage	$U_N$	V DC	24 +- 10%	24 +- 10%
Internal protection	I	A	5.0	5.0
Max. operating current	$I_B$	A	4	4
Max. active power	P	W	65	65
INTERFACES				
External control	$U_S / I_S$	V DC	0-10 / 4-20	0-10 / 4-20
Return value output voltage	$I_{Ua}$	mA	4-20	4-20
- Max. load resistance	$R_B$	$\Omega$	600	600
Return value output current	$I_{Ia}$	mA	4-20	4-20
- Max. load resistance	$R_B$	$\Omega$	600	600
Output voltage CG 102 active	$U_{ON}$	V DC	24 +- 10%	24 +- 10%
- Max. supply current		A	0.5	0.5
Power supply discharging generator DG X06	$U_B$	V DC	24 +- 10%	24 +- 10%
- Max. supply current		A	0.5	0.5
INTERFACE ERRORS				
Voltage error output CG 102	$U_F$	V DC	24 +- 10%	24 +- 10%
- Max. supply current	$I_V$	A	0,5	0.5
Error output DG X06	$U_F$	V DC	24 +- 10%	24 +- 10%
- Max. supply current	$I_V$	A	0.5	0.5
Output voltage	$U_A$	KV DC	+2 - +25	-2 - -25
Max. output current	$I_{max}$	mA	2	2
Type of protection			IP 65	IP 65
Number of high-voltage slots			4	4
External release			potenzial-free contact	potenzial-free contact

SUBJECTS TO TECHNICAL MODIFICATIONS.



Small product,  
big effect.



**Electrodes**

*The KERSTEN charging electrodes are the key element in creating and applying targeted electrostatic charge. The required size and additional functions, like air support, are able to be adapted to your requirements.*

The electrodes can be attached to any point and, therefore, can be used very precisely. The longevity of the electrodes makes them particularly suitable for long-term use.

**KERSTEN-PRODUCTS – YOUR BENEFITS**

- Durable and robust due to GFRP
- Minimal maintenance / Maintenance free
- Continuous flow of ions
- Customizable to the centimetre

**LEGEND**

L = with adjustable air support

**GENERAL NOTICE**

Custom-made products and customer-specific adaptations are possible at any time if necessary.

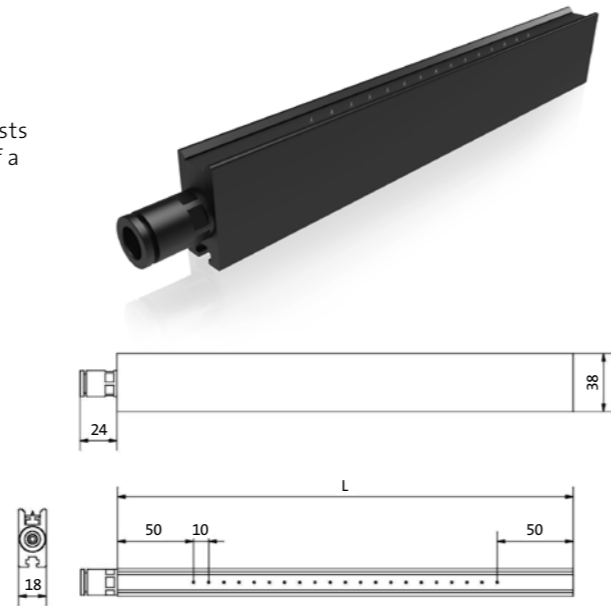


Find further information related to product category at [www.kersten.de/en](http://www.kersten.de/en)

## CE 103

Our new charging electrode. The charging electrode CE 103L consists of glass fibre reinforced plastic and is used for surface charging of a wide variety of materials.

- Minimal maintenance effort
- Plug-in system
- Continuous flow of ions

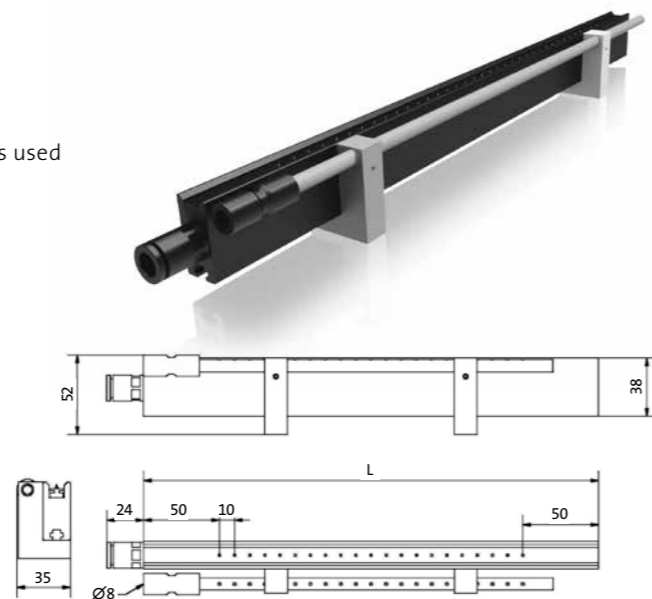


All dimensions in mm.

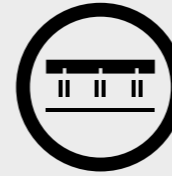
## CE 103 L

Our new charging electrode. The charging electrode CE 103L (with air support) consists of glass fibre reinforced plastic and is used for surface charging of a wide variety of materials.

- Minimal maintenance effort
- Plug-in system
- Continuous flow of ions
- Suitable for your compressed air supply



All dimensions in mm.



## ELECTRODES

GENERAL			CE 103	CE 103 L
Supply voltage	$U_{max}$	kV DC	+/-30kV	+/-30kV
Grid with (tip distance)		mm	10	10
Minimum distance to metal surfaces (lateral/operating direction)				
- Lateral (max. voltage)	$A_{min}$	mm	50	50
- In operating direction (max. voltage)	$A_{min}$	mm	50	50
Minimum bend radius of cable (fixed installation)	R	mm	64	64
Air connection		mm		Ø8
<b>CLIMATIC CONDITIONS</b>				
Temperature for transport and storage	T	°C	-25 - +85*	-25 - +85*
		°F	-13 - +185*	-13 - +185*
Temperature in operation	T	°C	+5 - +80**	+5 - +80**
		°F	+41 - +176**	+41 - +176**
Relative humidity (non-condensing)	RH	%	< 80	< 80
<b>DIMENSIONS</b>	L / B / H	mm	L / 18 / 38	L / 35 / 52

\*acc. UL50 TypB / class 3K3 max. +70 0C (+158 0F) \*\*acc. UL50 TypB / class 3K3 max. +70 0C (+158 0F)

SUBJECTS TO TECHNICAL MODIFICATIONS.

## GENERAL ACCESSORIES

- Measuring Instruments:  
Securing process quality through checks is an important topic. With the measurement devices offered by KERSTEN, you're able to have your entire process under control. We will gladly create an offer for you with the right measurement devices for your application
  - Electrostatic field meter
  - Digital multimeter
  - High voltage probe
- Pneumatic Supply:  
The pneumatic supply and distribution systems offered by KERSTEN allow you to enjoy the benefits of air-assisted electrostatic discharging even without your own house air supply.
  - Compressor
  - Air fittings



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