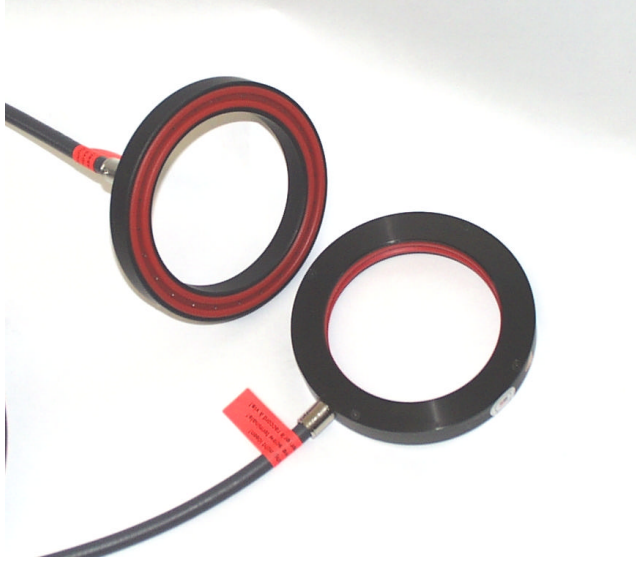


Operating instructions Ring electrode



Operating instructions Ring electrode



Static Line



V01



Types:	Ring electrode, single-piece, axial pins	RE 014, RE 018, RE 024 RE VS 014, RE VS 018, RE VS 024
	Ring electrode, single-piece, pins towards centre	RE 014, RE 018, RE 024 RE VS 014, RE VS 018, RE VS 024
	Ring electrode, two-piece, pins towards centre	RE 014, RE 018, RE 024 RE VS 014, RE VS 018, RE VS 024

Keep in a safe place for future reference!

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| 3. Installation | 7. Technical data |
| 4. Application | |

1 Notes on operating instructions

In these operating instructions, the "Ring electrode" is also referred to as "unit" or "ionizing unit".

1.1 Pictorial markings used

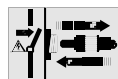
In these operating instructions



Caution!
Important instructions!



Danger!
High voltage!
Danger of fatal accidents!



**Switch off the power pack before connecting
or disconnecting the coaxial connectors!**

In the operating instructions and on the unit



Danger!
High voltage!
Danger of fatal accidents!

2 Safety

The unit is operationally safe, provided that it is operated in accordance with its intended use. In case of misuse, dangers may result:

- for life and limb of the operator,
- for the unit and other assets.

Also note Chapter 3.1 (Important installation notes).



For operators with heart pacemaker's special instructions should be requested from the manufacturer!

During operation of the units, small quantities of ozone will form. In order to ensure adherence to maximum permitted ozone concentrations at the workplace, make sure that the workplace is ventilated sufficiently during operation of the units.



The operator of the units must take care to ensure sufficient ventilation during operation!



The units must be protected from humidity and moisture!

2.1 Intended use

Ionizing units generate positive and negative ions. They are intended for the elimination of electrostatic charges during the production of plastic tubes or plastic bags and from filling machines etc.

HAUG power packs only must be used for supplying the high voltage to the units.



Do not install or use the units in areas subject to explosion hazards.

For reasons of safety, unauthorized conversions and modifications of the unit are not permitted. The installation and operating conditions indicated in these Operating Instructions must be adhered to.

2.2 Danger sources

Defective high-voltage plugs and cables may lead to danger of electric shocks. Shut down the unit immediately in case of visible damage and suspected electrical defects.



Danger!
High voltage!
Danger of fatal accidents!



***Switch off the power pack before connecting
or disconnecting the coaxial connectors!***

2.3 Operator qualifications

The unit may be installed and put into operation by trained electricians only and by authorized persons informed about the potential dangers. The above mentioned persons must have read the operating instructions and must follow the instructions, notes and safety advice.

3 Installation

The unit may be installed by trained electricians only and by authorized persons informed about the potential dangers. The above mentioned persons must have read the operating instructions and must follow the instructions, notes and safety advice.

3.1 Important installation instructions

The operation of the unit is not affected by the position in which it is installed.



Do not connect the units to the power pack until installation is completed.



Switch off the power pack before connecting or disconnecting the coaxial connectors!

3.2 Ring electrode

The numerals refer to the illustration at the end of these instructions.

- 1** Ring electrode, single-piece, axial pins.
- 2** Ring electrode, single-piece, pins towards centre.
- 3** Ring electrode, two-piece, pins towards centre.
For opened dimension L1, refer to Technical Data.
- 4** Most favourable distance ionizing unit - material approx. 20 - 25 mm,
min. 10 mm, max. 30 mm.
- 5** Install high-voltage cables without kinks. The smallest bending radius is 50 mm.

4 Application

The unit may be put into operation by trained electricians only or by persons instructed in the potential dangers. The above mentioned persons must have read the operating instructions and must follow the instructions, notes and safety advice.

Conditions:

The power pack and the ionizing unit must be connected correctly.



The operator of the units must take care to ensure sufficient ventilation during operation!



The units must be protected from humidity and moisture!

Disconnect the units properly from the voltage supply and dry if they have become wet or moist.

These ionizing units are intended to be used in combination with HAUG power packs for the elimination of electrostatic charges during the production of plastic tubes or plastic bags and from filling machines etc.

Example:

Figure 1: Extruder

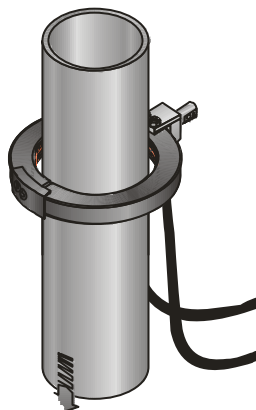


Figure 1

5 Remedy of defects

Any remedy of defects must be carried out by trained electricians only. The above mentioned person must have read the operating instructions and must follow the instructions, notes and safety advice.

In case of defects regarding the power pack and the ionizing unit, please check for correct installation first. If this does not solve the problem, please return the power pack together with the ionizing unit for examination.



Danger!
High voltage!
Danger of fatal accidents!



***Switch off the power pack before connecting
or disconnecting the coaxial connectors!***

6 Maintenance and repairs



Danger!
High voltage!
Danger of fatal accidents!

This unit does not include any parts which can be maintained or repaired by the operator.

Should the unit prove defective or if a defect is suspected, switch off unit immediately and secure against subsequent reuse.



Clean at intervals of no more than 14 days using the special cleaning brush RB1 and special cleaning fluid SRM1 or the special cleaning system RS1 (refer to "Accessories").

Before cleaning, disconnect the units properly from their power supply.

6.1 Cleaning of ionizing units



For particular applications (e. g. food, pharmaceuticals and cosmetics) where the special cleaning agent SRM1 must not be used, please confer with Haug GmbH & Co. KG first!



High-voltage plugs and sockets must be protected from moisture. Never use a high-pressure cleaner on any account!

6.1.1 Dry cleaning

1. Before cleaning the unit, disconnect it first from the voltage supply.
2. Use the special cleaning brush RB1.
3. Brush off the ionizing pins using the special cleaning brush RB1 and then blow off with clean compressed air (max. 6 bar).
4. Reconnect the unit properly to the voltage supply.

6.1.2 Moist cleaning



**Only clean the unit moist – never wet!
Do not use water to clean the unit!
Only use cleaning agents recommended by Haug GmbH & Co. KG!**

1. Before cleaning the unit, disconnect it first from the voltage supply.
2. Only use the special cleaning brush RB1 with the special cleaning agent SRM1 or the special cleaning system RS1.
3. Moisten the special cleaning brush RB1 with the special cleaning agent SRM1 and brush the ionizing pins. Then blow off the unit with clean compressed air (max. 6 bar) and allow to dry.
4. Before connecting the unit to the voltage supply, check the high-voltage connections and high-voltage plugs. The connections must be clean and dry.
5. Reconnect the unit properly to the voltage supply.

6.2 Accessories

Special cleaning fluid SRM1	10.7220.000
Special cleaning brush RB1	10.7218.000
Special cleaning system RS1	10.7218.001
Circular brush for special cleaning system TBR	X – 6822

7 Technical data

7.1 Supply voltage

The ionizing units are provided with high voltage from HAUG power packs.

7.2 Ambient conditions

Ambient temperature:

Rated application range	+5 °C to +45 °C
Extreme range for storage and transport	-15 °C to +60 °C

Humidity:

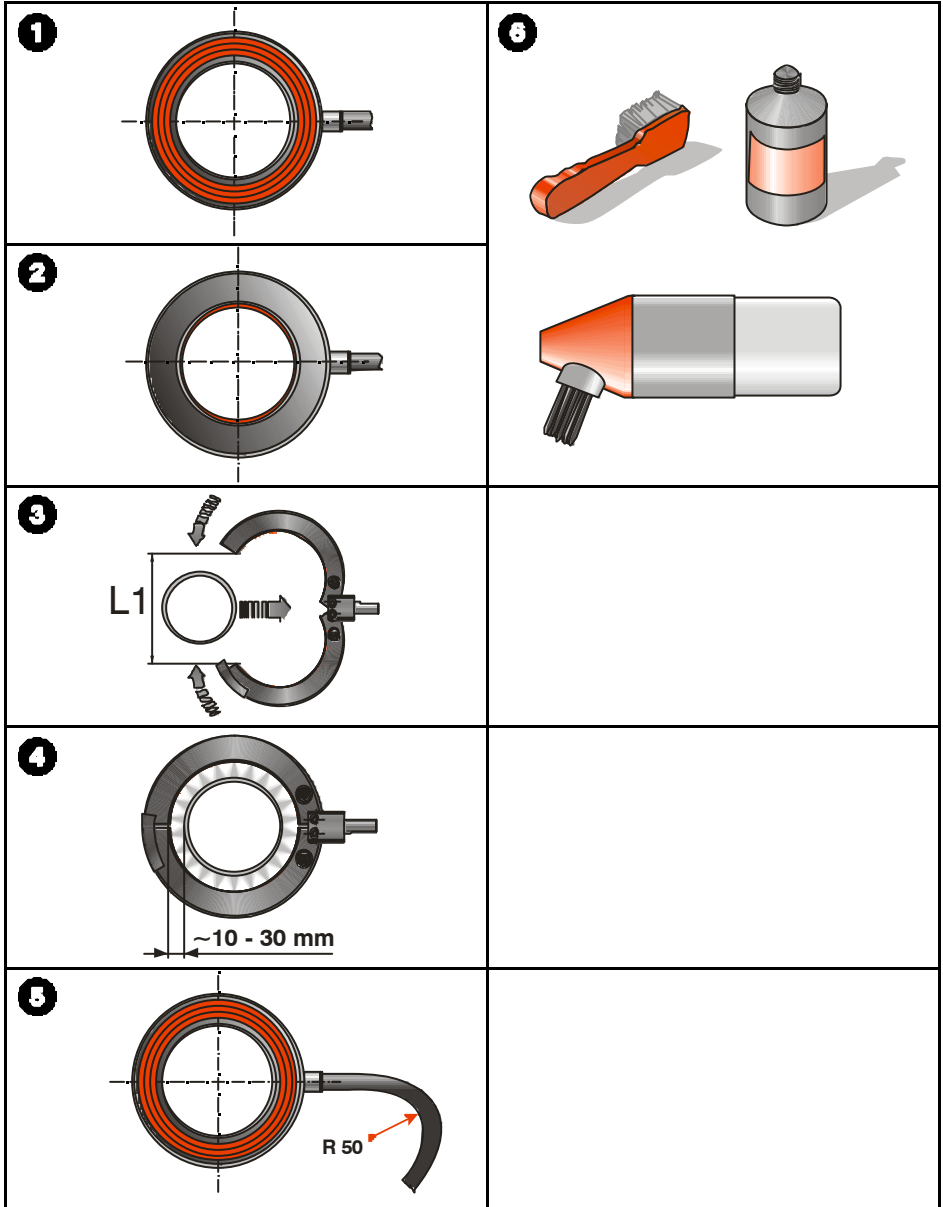
Rated application range	20 % to 65 % RF
Extreme range for storage and transport	0 % to 85 % RF

7.3 Dimensions

Type	Pins	Standard diameter
RE single-piece	axial	ø 14/18/24 mm
RE single-piece	towards centre	ø 14/18/24 mm
RE two-piece	towards centre	ø 14/18/24 mm
RE VS single-piece	axial	ø 14/18/24 mm
RE VS single-piece	towards centre	ø 14/18/24 mm
RE VS two-piece	towards centre	ø 14/18/24 mm

High tensions lead 2 m

3	Opened dimension L1 for RE / RE VS two-piece	014 = approx. 140 mm
		018 = approx. 180 mm
		024 = approx. 240 mm





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