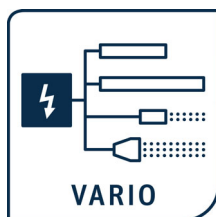


Operating Instructions



F00033y



Static Combi Cleaner SCC

BA-en-2038-2511



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Dear Customer,

The Static Combi Cleaner SCC is a high-power ionization cleaning station for the non-contacting removal of dust and dirt deposits on three-dimensional or structured surfaces.

The unit neutralizes static dust, with the dust blown off by pulsed air blasts. The effective elimination of static charges from cleaned surfaces prevents dust from settling back on product surfaces. The Static Combi Cleaner is also perfectly suitable for drying work-pieces and tools.

Applications

- Installation in painting lines
- Electrical industry
- Furniture making
- Timber and wood processing
- Printing and packaging

Benefits in production

- Improved, consistent quality
- Higher productivity
- No reworking

Engineering

- Rotating, speed-controlled cleaning nozzles delivering best results even under pressure fluctuations
- Sensors for speed monitoring (optional)
- Sensor box for connecting more than 2 sensors (optional)
- Limited drive power helps to save compressed air and prevents the risk of injuries
- Discharge engineering for perfect discharging performance and ultimate safety
- Long range
- Exchangeable precision ball bearings
- Robust design
- Easy installation

The Static Combi Cleaner is available in cantilever design without extraction function and in encased design with extraction enclosure. The working widths range from 100 to 3,000 mm (greater lengths on request).

Please read the operating instructions carefully before starting the instrument. This will help you prevent personal injuries and damage to property.

Please give us a call if you have any suggestions, proposals or ideas for improvements. We greatly appreciate the feedback from the users of our appliances.

1. Outline of appliance

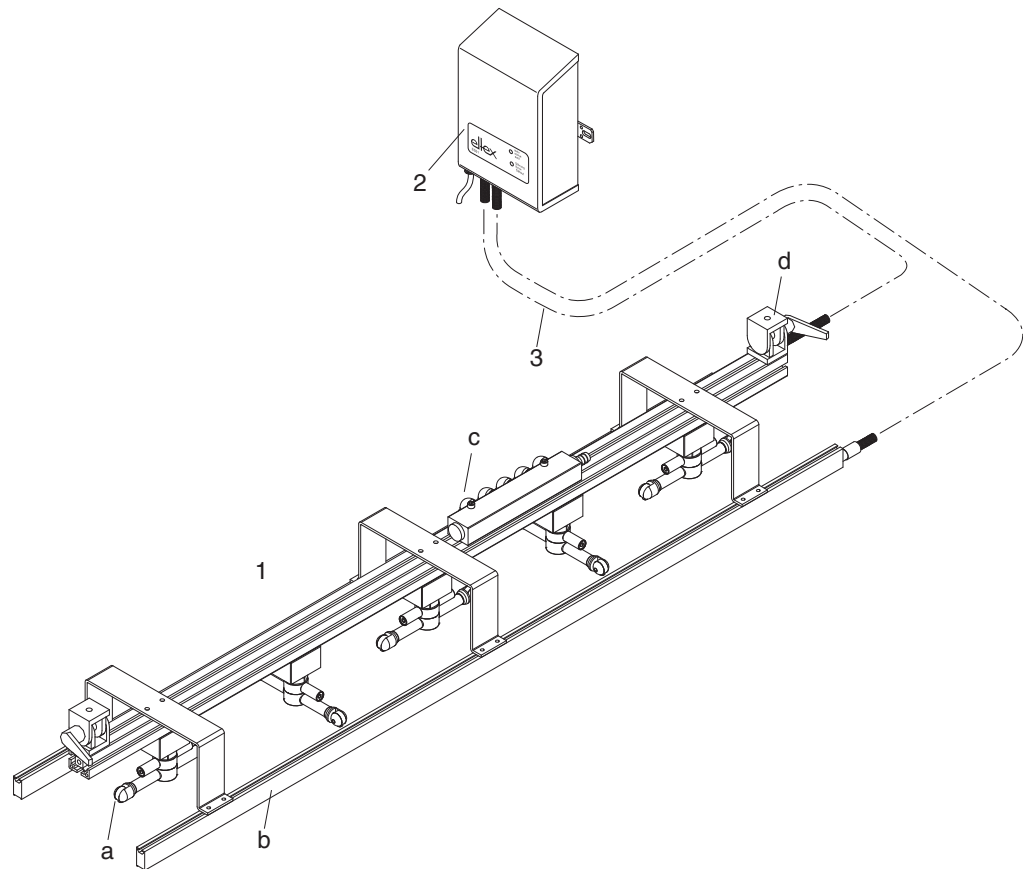


Fig. 1:
Overview Static
Combi Cleaner
SCC

- 1 Static Combi Cleaner SCC
- 2 Type ES51 power supply unit (see separate operating instructions)
- 3 Type KE cable
- a Rotating cleaning nozzle with speed control
- b Type R51A discharging bar (see separate operating instructions)
- c Compressed air distributor
- d Swivel-type assembly linkage (optional)

The effective diameter of the rotating nozzles depends on the space available at the installation site and on the speed of the objects to be cleaned. Higher speeds require smaller effective diameters. The 170 mm standard value covers speeds of up to 15 meters per minute.

The size of the nozzle inserts depends on the degree of pollution. Larger dust and dirt particles normally require larger nozzles, smaller diameters are usually sufficient for loose dust. The standard insert (1.2 mm) delivers good results in most applications. The inserts are easily exchanged for other sizes.

The Static Combi Cleaner SCC can be operated with the Eltex IONIZER ES51, PRO IONIZER ES61 and the COMPACT IONIZER ES24 power supplies.

Alternatively, the Static Combi Cleaner SCC is also available with the R50 discharging bar (permanently connected cable KE) or without bar.

2. Safety

The units have been designed, built and tested using state-of-the-art engineering, and have left the factory in a technically and operationally safe condition. If used improperly, the units may nevertheless be hazardous to personnel and may cause injury or damage. Read the operating instructions carefully and observe the safety instructions.

For warranty conditions, please refer to the General Terms and Conditions (GTC), see www.eltex.de.

2.1 Identification of risks and hazards

Possible risks and hazards resulting from the use of the units are referred to in these operating instructions by the following symbols:



Warning!

This symbol appearing in the operating instructions refers to operations which, if carried out improperly, may result in serious personal injuries.



Caution!

This symbol appearing in the operating instructions refers to operations which, if carried out improperly, may result in damage to property.

2.2 Proper use

The Static Combi Cleaner may be used only as an ionization cleaning station for the non-contacting cleaning of surfaces and for cleaning and drying work pieces and tools.



The cleaning nozzles must be operated only with compressed air according to the ratings in chap. 8 Technical specifications.

The manufacturers will not assume any liability and warranty if the units are used improperly or used outside the intended purpose.

Modifications or changes made to the devices are not permitted.

Use only original Eltex spare parts and equipment.

2.3 Work and operational safety



Warning!

Carefully observe the following notes and the complete [chapter 2 "Safety", page 6!](#)

- Before carrying out repairs, cleaning or maintenance work and before resetting after malfunctions, switch off the power supply and disconnect the mains supply voltage (see [chapter 5 "Maintenance", page 10](#), [chapter 6 "Troubleshooting", page 11](#)).
- Before carrying out any work involving the units, the machine which has the units fitted must not be in operation (see [chapter 5 "Maintenance", page 10](#), [chapter 6 "Troubleshooting", page 11](#)).
- Any work involving the units must be carried out by qualified electricians (see [chapter 5 "Maintenance", page 10](#), [chapter 6 "Troubleshooting", page 11](#)).
- Do not carry out any maintenance or repair work without first cutting off the compressed air supply (see [chapter 5 "Maintenance", page 10](#), [chapter 6 "Troubleshooting", page 11](#)).
- The replacement of bearing must be carried out by trained precision mechanics only (see [chapter 5 "Maintenance", page 10](#), [chapter 6 "Troubleshooting", page 11](#)).
- The Static Combi Cleaner SCC must be operated only with compressed air according to the ratings (see [chapter 8 "Technical specifications", page 12](#)).
- Before operating the unit in atmospheres containing solvents the solvent resistance must be reviewed by Eltex.
- Do not lead the air flow of the nozzles directly into eyes or ears - risk of injury.
- Before activating the system the user must make sure that the installation and the connections are correct and functioning properly. The unit can then be activated (see [chapter 4 "Operation", page 9](#)).
- The operation of the unit generates noise. The noise level depends on many different factors such as site of installation, layout conditions, screening and the form of the components to be discharged and can therefore not be specified in general terms. The noise level must be measured on site, ear protection may have to be worn.
- Acoustic warning signals can be missed because of the emerging noise. This fact must be considered when designing signalers for these plants.



Warning!

Please refer to the corresponding operating instructions of the discharging bar and the power supply.

2.4 Inspection of the protective resistors - contact protection

The function and the appearance of the protective resistors must be inspected at regular intervals. The inspection intervals are specified in the accident prevention regulations, as amended (e.g. in Germany DGUV V3).

The function of the series resistors must be checked using a suitable measuring device. The test voltage must be 1,000V. The measured resistance between the high-voltage connection and the individual emission tip must not fall below 120 MOhm and not exceed 180 MOhm.

2.5 Technical advance

The manufacturer reserves the right to make changes to the technical specifications without prior notice in order to adapt the units to state-of-the-art engineering. Eltex will provide the latest information on any changes or modifications in the operating instructions on request.

3. Installation and assembly

The Static Combi Cleaner SCC is to be assembled by the plant operator via the T groove rail using M6 or M8 screws and suitable sliding blocks.

Torque:

M6 screws: min. 9 Nm, max. 11 Nm

M8 screws: min. 20 Nm, max. 27 Nm

Swivel-type assembly linkage are available as accessory.



Warning!

Please refer to the corresponding operating instructions of the discharging bar and the power supply.

4. Operation

Startup



Before activating the system the user must make sure that the installation and the connections are correct and functioning properly. The unit can then be activated.

Nozzle inserts

The size of the nozzle inserts depends on the degree of pollution. Larger dust and dirt particles normally require larger nozzles, smaller diameters are usually sufficient for loose dust. The standard insert (1.2 mm) delivers good results in most applications. The inserts are easily exchanged for other sizes.

Depending on the application, twin nozzles can be used instead of single nozzles.



Warning!

Please refer to the corresponding operating instructions of the discharging bar and the power supply.

5. Maintenance



Warning!

Electric shock hazard!

- Do not carry out any maintenance or repair work without first switching off the power supply and disconnecting the supply voltage.
- The machine which has the units fitted must not be in operation.
- Any work involving the units must be carried out by qualified electricians.
- Do not carry out any maintenance or repair work without first cutting off the compressed air supply.



Caution!

The replacement of bearing must be carried out by trained precision mechanics only.

Cleaning nozzles

The cleaning nozzles are usually maintenance-free.

The extremely smooth-running bearings are wearing parts and must be replaced after a certain operating time.



Warning!

Please refer to the corresponding operating instructions of the discharging bar and the power supply.

Inspection of the protective resistors - contact protection

The function and the appearance of the protective resistors must be inspected at regular intervals. The inspection intervals are specified in the accident prevention regulations, as amended (e.g. in Germany DGUV V3).

The function of the series resistors must be checked using a suitable measuring device. The test voltage must be 1,000V. The measured resistance between the high-voltage connection and the individual emission tip must not fall below 120 MOhm and not exceed 180 MOhm.

6. Troubleshooting



Warning!

Electric shock hazard!

- Do not carry out any maintenance or repair work without first switching off the power supply and disconnecting the supply voltage.
- The machine which has the units fitted must not be in operation.
- Any work involving the units must be carried out by qualified electricians,
- Do not carry out any maintenance or repair work without first cutting off the compressed air supply.



Caution!

The replacement of bearing must be carried out by trained precision mechanics only.

Malfunction:

The speed of the nozzle declines, the nozzle can even come to a rest.

Cause:

Worn out bearings.

Measure:

Replace bearing.

Note!

A proper function can only be ensured when the replacement of the bearing is carried out at our factory.



Warning!

Please refer to the corresponding operating instructions of the discharging bar and the power supply.

7. Decommissioning / Disposal

The Static Combi Cleaner SCC can be disposed of using the general waste disposal methods (electronic waste).

8. Technical specifications

IONIZER ES51 power supply	see operating instructions ES51 BA-en-2014
PRO IONIZER ES61 power supply	see operating instructions ES61 BA-en-2089
COMPACT IONIZER ES24 power supply	see operating instructions ES24 BA-en-2062
blueBAR R50 / R51A discharging bar	see operating instructions R50 / R51A BA-en-2016
Ratings	
Weight	without extraction enclosure: approx. 9 kg/meter with extraction enclosure: approx. 12 kg/meter
Air pressure	5...10 x 10 ⁵ Pa dry, oil-free, filtered fineness of filtration < 20 µm
Air consumption	Single nozzle at 6 x 10 ⁵ Pa, Ø nozzle insert mm 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0 79 101 150 201 246 313 392 484 N/min Twin nozzles at 3 x 10 ⁵ Pa, Ø nozzle insert mm 0,6 0,8 106 148 NI/min (further values available on request)
Nozzle speed:	approx. 800 min ⁻¹ , ±10 %
Air connection	G 1/2", or hose grommet NW13
Extraction power (with extraction enclosure)	min. 600 m ³ /h per extraction nozzle, extractions: min. 25 hPa
Operating ambient temperature	0...+80 °C (+32...+176 °F)
Storage temperature	0...+80 °C (+32...+176 °F)
Ambient humidity	max. 70 % RH, non-dewing



Order information Static Combi Cleaner Standard	Order No.: SCC / A <i>BBB C D E F G H</i> <i>A</i> 1...7 (number of extraction elements) 0 (without extraction elements) <i>BBB</i> Working width in mm <i>C</i> Number of nozzles A = 1 pcs. to O = 14 pcs. max. no. of nozzles = working width / (effective diameter + 30 mm) <i>D</i> Size of nozzle inserts in 0.2 mm steps standard insert = 1.2 mm A = 0.6 mm to H = 2.0 mm I = 0.6 mm to Q = 2.0 mm Twin nozzle nozzle inserts interchangeable <i>E</i> Effective diameter in mm A = 75 mm, B = 80 mm, M = 180 mm in 10 mm steps standard: without enclosure 170 mm with enclosure 140 mm <i>F</i> S (without ESD) E (with ESD) <i>G</i> S (with discharging bar R51A) F (with discharging bar R50) K (without discharging)
Additional order information Static Combi Cleaner Version with discharging bar R50	<i>H</i> A (axial cable gland) W (angle gland) <i>K</i> L (plug for connection to power supplies ES51 / ES61 with protective hose) S (plug for connection to power supplies ES51 / ES61 without protective hose) Y (plug for connection to power supply ES24 with protective hose) Z (plug for connection to power supply ES24 without protective hose) <i>LLL</i> high voltage cable length (5 - 100 decimeter)

9. Dimensions

Static Combi Cleaner without extraction enclosure

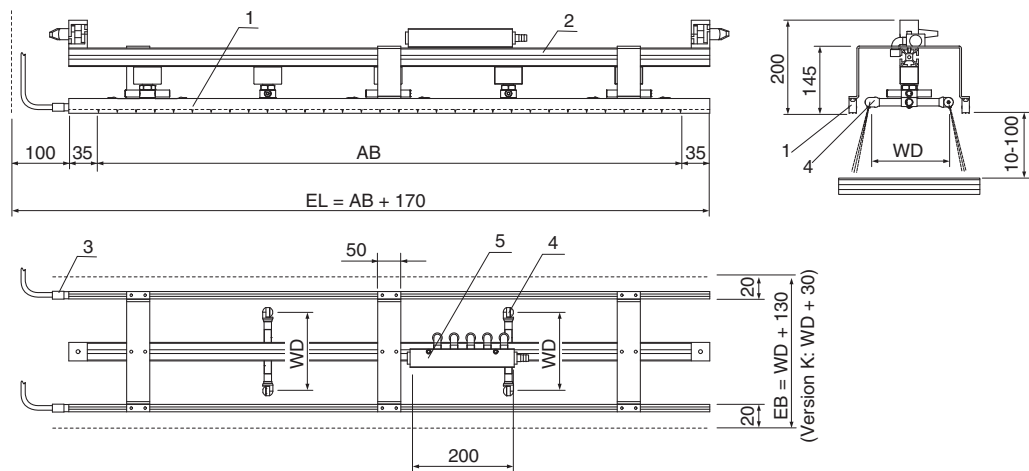


Fig. 2:
Dimensions
without extraction
enclosure

Z00512y

Static Combi Cleaner with extraction enclosure

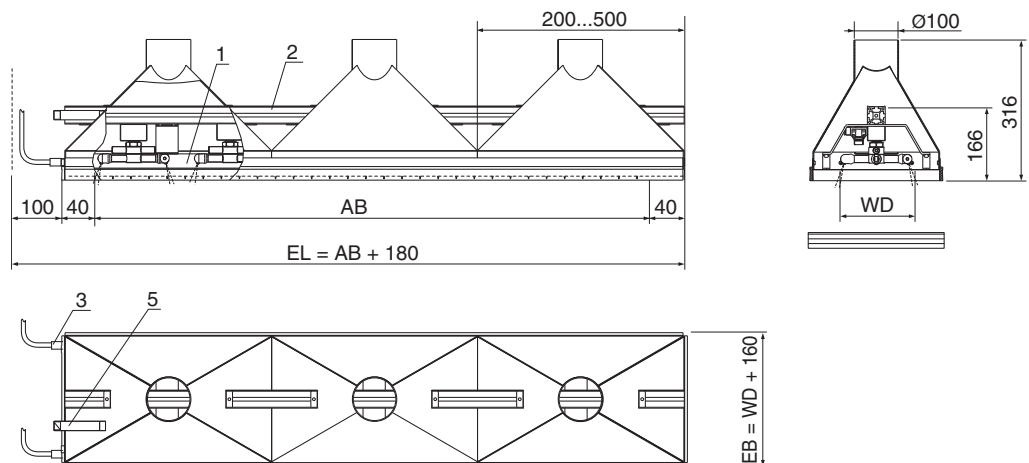


Fig. 3:
Dimensions
with extraction
enclosure

Z00519y

- | | |
|--|--------------------------|
| 1 Discharging bar R51A / R50 | AB = working width |
| 2 T groove rail | EL = installation length |
| 3 Bar connection | WD = effective diameter |
| 4 Rotating cleaning nozzle | EB = installation width |
| 5 Compressed air distributor (sliding) | |

number of extraction elements: see chapter 10

10. Standard versions

10.1 Version with extraction enclosure

working width in cm	number of extraction elements	Number of nozzles	effective dia- meter of the nozzles in mm
10	1	1	90
20	1	2	80
25	1	2	100
30	1	2	120
35	1	3	90
40	1	2	140
50	1	3	140
60	2	4	120
70	2	4	120
80	2	4	140
100	3	6	120
110	3	6	140
120	3	6	140
130	3	6	140
140	4	8	120
150	4	8	120
160	4	8	140
180	4	8	150
200	5	10	140
210	5	10	140
220	5	10	140
250	6	12	140
260	6	12	140
270	7	14	140
280	7	14	140
300	7	14	140

10.2 Version without extraction enclosure

working width in cm	Number of nozzles	effective dia- meter of the nozzles in mm
20	2	80
25	2	100
30	2	120
40	2	170
50	2	170
60	3	170
70	3	170
80	4	170
100	4	170
110	5	170
120	5	170
130	5	170
140	6	170
150	6	170
160	7	170
170	8	170
180	9	170
190	9	170
200	10	170
210	10	170
220	10	170
230	11	170
250	12	170
260	12	170

11. Spare parts

Article	Article No.
Air nozzle insert 0,6 mm	108213
Air nozzle insert 0,8 mm	108214
Air nozzle insert 1,0 mm	108215
Air nozzle insert 1,2 mm	108216
Air nozzle insert 1,4 mm	108217
Air nozzle insert 1,6 mm	108218
Air nozzle insert 1,8 mm	108219
Air nozzle insert 2,0 mm	108220
Linkage with clamp lever	108221
Power supply and accessories	
IONIZER ES51 power supply for discharging bars	ES51/E2PA
PRO IONIZER ES61 power supply for discharging bars (version voltage supply, interfaces, cable length etc. after consultation with Eltex)	ES61/P_
COMPACT IONIZER ES24 power supply	ES24/O_
Sensor box	SB
Sensor for speed monitoring, complete cable length 1 m	118308
Sensor for speed monitoring, complete cable length 5 m	118929
Connecting cable for discharging bars (specify length)	KE/LI_
Connecting cable for function and malfunction signals (specify length)	KS/C_
Blanking plug for high voltage connection	100597
Blanking plug for function and malfunction signal plug	ELM01115
Mains cable gland	MCH02176
Ground terminal	ELM00202
Operating instructions	BA-xx-2038

Please specify the article number when ordering.

We recommend to keep a complete cleaning nozzle in stock to replace defective nozzles quickly.

To replace the bearings we offer complete servicing at our factory.

EU-Declaration of Conformity

CE-2038-en-2411

Eltex-Elektrostatik-Gesellschaft mbH
Blauenstraße 67 - 69
D-79576 Weil am Rhein



declares in its sole responsibility that the product

Static Combi Cleaner SCC / SCC-C / SCC-P

(according to Eltex reference code)

complies with the following directives and standards.

Relevant EU-Directive:

2014/35/EU

Low Voltage Directive

Harmonized standard applied:

EN 60204-1:2018

Safety of machinery – Electrical equipment of machines –
General requirements

Relevant EU-Directive:

2014/30/EU

EMC Directive

Harmonized standards applied:

EN IEC 61000-6-2:2019

Electromagnetic compatibility (EMC)
Generic standards – Immunity for industrial environments

EN 55011:2016 + A1:2017
+ A11:2020 + A2: 2021

Industrial scientific and medical equipment –
Radio-frequency disturbance characteristics – limits and methods
of measurement

Relevant EU-Directives:

2011/65/EU

RoHS Directive

(EU) 2015/863

RoHS Delegated Directive

in the version effective at the time of delivery.

Eltex-Elektrostatik-Gesellschaft mbH keep the following documents for inspection:

- proper operating instructions
- plans
- other technical documentation

Weil am Rhein, 05.11.2024
Place/Date

A blue ink signature of Lukas Hahne, written in a cursive style. Below the signature is a horizontal line, and underneath that line, the name "Lukas Hahne, Managing Director" is printed in a black sans-serif font.

UKCA Declaration of Conformity

CA-2038-en-2402

Eltex-Elektrostatik-Gesellschaft mbH
Blauenstraße 67 - 69
D-79576 Weil am Rhein



declares in its sole responsibility that the product

Static Combi Cleaner SCC / SCC-C / SCC-P (according to Eltex reference code)

complies with the following directives and standards.

Applicable Regulation:

S.I. 2016 No. 1101

Electrical Equipment (Safety) Regulations

Used Designated Standard:

BS EN 60204-1:2018

Applicable Regulation:

S.I. 2016 No. 1091

Electromagnetic Compatibility Regulations

Used Designated Standard:

BS EN IEC 61000-6-2:2019

BS EN 55011:2016+A2:2021

Applicable Regulation:

S.I. 2012 No. 3032

RoHS Regulations

in the version effective at the time of delivery.

Eltex-Elektrostatik-Gesellschaft mbH keep the following documents for inspection:

- proper operating instructions
- plans
- other technical documentation

Weil am Rhein, 15.02.2024
Place/Date



Lukas Hahne, Managing Director

Eltex offices and agencies

The addresses of all
Eltex agencies can be
found on our website at
www.eltex.de



Z01007y



Eltex-Elektrostatik-Gesellschaft mbH
Blauenstraße 67-69
79576 Weil am Rhein | Germany
Phone +49 (0) 7621 7905-422
eMail info@eltex.de
Internet www.eltex.de