

EN **Operating instruction**



FEC

EN **Fume extraction system**

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EN Translation of the original operating instructions

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1 Identification	EN-3	7 Operation	EN-17
1.1 Marking	EN-3		
1.2 EU Declaration of Conformity	EN-3	8 Decommissioning	EN-17
2 Safety	EN-4	9 Maintenance and cleaning	EN-18
2.1 Designated use	EN-4	9.1 Maintenance intervals	EN-19
2.2 Obligations of the operator	EN-4	9.2 Filter dedusting	EN-20
2.3 Personal protective equipment (PPE)	EN-4	9.3 Emptying the filter housing	EN-21
2.4 Classification of the warnings	EN-5	9.4 Changing the filter	EN-22
2.5 Specific safety instructions	EN-5	9.5 Changing the exhaust air filter	EN-24
2.6 Safety instructions for the mains connection	EN-6	10 Troubleshooting	EN-25
2.7 Warning and notice signs	EN-6		
2.8 Emergency information	EN-7	11 Disassembly	EN-26
3 Product description	EN-7	12 Disposal	EN-26
3.1 Technical data	EN-7	12.1 Materials	EN-26
3.2 Abbreviations	EN-7	12.2 Consumables	EN-26
3.3 Nameplate	EN-8	12.3 Packaging	EN-26
3.4 Signs and symbols used	EN-8		
4 Scope of delivery	EN-9	13 Appendix	EN-27
4.1 Transport	EN-9	13.1 Circuit diagram	EN-27
4.2 Storage	EN-9		
5 Functional description	EN-9		
5.1 Control elements	EN-11		
6 Commissioning	EN-12		
6.1 Transport and installation	EN-12		
6.2 Connecting and starting	EN-13		
6.2.1 Automatic starting	EN-14		
6.2.2 Automatic starting functions	EN-14		
6.3 Current clamp (optional)	EN-15		
6.4 Connector for separate exhaust air hose	EN-16		
6.5 Establishing the electrical connection	EN-16		


1 Identification

The FEC fume extraction system is used in industry and in the trade for the extraction of welding fume. It is available with connection voltages of 115 V and 230 V. These operating instructions only describe the FEC. The FEC fume extraction system may be operated only with original **ABICOR BINZEL** spare parts.

1.1 Marking

This product fulfills the requirements that apply to the market to which it has been introduced. A corresponding marking has been affixed to the product, if required.

1.2 EU Declaration of Conformity

EC Declaration of Conformity in accordance with 2006/42/EC (Machinery) Translation of the EC declaration of Conformity			
Manufacturer		Alexander Binzel Schweisstechnik GmbH & Co. KG Kiesacker 35418 Alten-Buseck Germany	
Authorized person for the technical documentation		Hubert Metzger Address – see address of manufacturer	
Product	Description	The fume extraction system FEC is used for the extraction of welding fume. It forms part of the welding system.	
	Designation	Fume extraction system	Function Deduster for capturing, transporting and separation of dry dust and welding fume
	Trade name	FEC	Type
This declaration of conformity is issued under the sole responsibility of the manufacturer. The object of the declaration described above is in conformity with the relevant essential EC safety and health requirements of Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery (OJ L157, 09.06.2006) with respect to its construction, design and version placed in the market by us. This declaration ceases to be valid in case of a modification of the device without our authorization.			
Applicable EC directives		2006/42/EC Machinery 2014/30/EU EMC 2011/65/EU RoHS	
Harmonized standards used		EN ISO 12100:2010 EN 55014-1:2006 + A1:2009 + A2:2011 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-6-2:2005 EN 50581:2012	
Harmonized national standards and technical specifications			
Alten-Buseck, 02.02.2018			
Signature		 Prof. Dr.-Ing. Emil Schubert, Managing Director	
Filing:	Document-no.:	01-02-2018	02-February-2018
			Page 1 of 1

2 Safety

The attached safety instructions must be observed.

2.1 Designated use

- The device described in these instructions may be used only for the purpose and in the manner described in these instructions. When doing so, please observe the operating, maintenance, and servicing conditions.
- Any other use is considered improper.
- Unauthorized modifications or changes to enhance the performance are not permitted.

2.2 Obligations of the operator

WARNING

Electromagnetic interferences

When used in residential areas.

- Use only in industrial zones according to DIN EN 61000-6-3.

- Any personnel using the fume extraction system or performing maintenance work on the fume extraction system must be instructed accordingly before use.
This training must include use of the device and the substances for which the device is intended, as well as safe disposal of the absorbed material.
- Store the operating instructions within easy reach of the device for reference and enclose them when passing on the product.
- Commissioning, operating, and maintenance work may be carried out only by qualified personnel. Qualified personnel are persons who, based on their special training, knowledge and experience, are able to assess the tasks assigned to them and identify possible dangers (in Germany, see TRBS 1203).
- Keep other people out of the work area.
- Please observe the occupational health and safety regulations of the relevant country.
- Ensure the work area is well lit and kept clean.
- Occupational health and safety regulations of the relevant country, for example, in Germany: Arbeitsschutzgesetz (Occupational Health and Safety Act) and Betriebssicherheitsverordnung (Ordinance on Industrial Safety and Health).
- Regulations on occupational safety and accident prevention.

2.3 Personal protective equipment (PPE)

To avoid danger to the user, these instructions recommend the use of personal protective equipment (PPE).

- This consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.

2.4 Classification of the warnings

The warnings used in the operating instructions are divided into four different levels and shown prior to potentially dangerous work steps. Arranged in descending order of importance, they have the following meanings:

DANGER

Describes an imminent threatening danger. If not avoided, this will result in fatal or extremely critical injuries.

WARNING

Describes a potentially dangerous situation. If not avoided, this may result in serious injuries.

CAUTION

Describes a potentially harmful situation. If not avoided, this may result in slight or minor injuries.

NOTICE

Describes the risk of impairing work results or potential material damage to the equipment.

2.5 Specific safety instructions

DANGER

Danger of explosion due to use of welding spray

During operation, please observe the following:

- Observe the hazard warnings and safety instructions in the Safety Data Sheet for the welding spray to be used.
- Switch off the fume extraction system before spraying the workpieces with welding spray.
- Do not allow the spray mist to be drawn into the fume extraction system by suction. In a hot system, this may lead to the formation of flammable/explosive vapor-air mixtures.

WARNING

Health risk caused by harmful dust

Observe the following before and during operation:

- The fume extraction system contains harmful dust as of the first use.
- The system may be emptied and serviced only by authorized personnel (in Germany, see TRBS 1203) wearing the respective protective equipment.
- The fume extraction system may not be operated without the filter system.
- The fume extraction system may not be operated with an open dust collecting drawer.
- During operation and fume extraction, the complete fume extraction system must be kept closed.

NOTICE

- Make sure that the extraction hose is not damaged by being driven over, crushed, torn or similar.

- The fume extraction system must only be used for extracting and separating welding fume.
- Do not allow liquids, aggressive gases, inflammable media or glowing particles (smouldering nests or similar) to be drawn in.
- Do not use or store the fume extraction system outdoors under humid conditions.
- Use of the fume extraction system when welding oil-contaminated metals is not permitted. Risk of fire!
- The 115 V // 50 Hz / 60 Hz or 230 V / 50 Hz power supply must be protected by a 16 A fuse on the mains side.
- If it is necessary to replace power cords or device connecting cables, only models indicated by the manufacturer may be used.
- Make sure that the extraction hose is not damaged by being driven over, crushed, torn or similar.
- When using the welding fume filter, the volume flow that is led back to the work area may not exceed 50 % of the supply air of the installation area. In the event of free room ventilation, the supply air flow corresponds to one room volume per hour. This corresponds to a ventilation rate of 1/h.

Supply air flow [m³/h] = room volume [m³] * ventilation rate [1/h]

Example: When using an **ABICOR BINZEL** welding fume filter with a rated volume flow of 230 m³/h, the same quantity of fresh air must be supplied. With natural ventilation, this is the case if the work area volume is at least 200 m³ (e.g.: surface of 58 m² multiplied by room height of 3.5 m).

2.6 Safety instructions for the mains connection




NOTICE

- Make sure that the power supply cable is not damaged by being driven over, crushed, torn or similar.

- The mains connecting cable must be checked for damage and wear at regular intervals.
- The fume extraction system may only be operated with an undamaged power supply cable.
- Only authorized personnel are allowed to replace the power supply cable and the power plug (in Germany, see TRBS 1203).
- When replacing the power plug of the power supply cable, protection from splashes and the mechanical strength must still be guaranteed.
- Use a rubberized cable H07RN-F3G1.5 when replacing the power supply cable.

2.7 Warning and notice signs

The following warning and notice signs can be found on the product:

Symbol	Meaning
	Read and observe the operating instructions!
	
	Caution: hot surfaces!

These markings must always be legible. They may not be covered, obscured, painted over or removed.

2.8 Emergency information

In the event of an emergency, immediately disconnect the following supplies:

- Electrical power supply

Further measures can be found in the power source operating instructions or in the documentation for other peripheral devices.

3 Product description

WARNING

Hazards caused by improper use

If improperly used, the device can present risks to persons, animals and material property.

- Use the device according to its designated use only.
- Do not convert or modify the device to enhance its performance without authorization.
- The device may be used only by qualified personnel (in Germany, see TRBS 1203).

3.1 Technical data

Connection voltage	115 V	230 V
Drive power	1.1 kW	
Mains frequency	50 Hz/60 Hz	50 Hz
Filter surface	0.8 m ²	
Connection diameter	50 mm	
Max. vacuum	19,000 Pa	
Max. air volume flow	230 m ³ /h	
Average sound pressure level LpA ¹	76 dB(A)	
Weight	25 kg	
Dimensions (LxWxH)	590 × 425 × 825	

Tab. 1 General information

¹ Measured according to the enveloping surface method according to DIN EN ISO 3744, measured at minimum volume flow; uncertainty of measurement of noise approx. ±4 (dB)A

Ambient temperature	0 °C to +40 °C
Relative humidity	Up to 90 % at 20 °C

Tab. 2 Ambient conditions during operation

Storage in a closed environment, ambient temperature	0 °C to +40 °C
Ambient temperature for shipment	−15 °C to +40 °C
Relative humidity	Up to 90 % at 20 °C

Tab. 3 Ambient conditions for transport and storage

3.2 Abbreviations

FEC	Fume extraction system (Fume Extraction Cyclone)
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Tab. 4 Abbreviations and term definitions

3.3 Nameplate

The FEC fume extraction system is labeled by means of a nameplate on the housing:

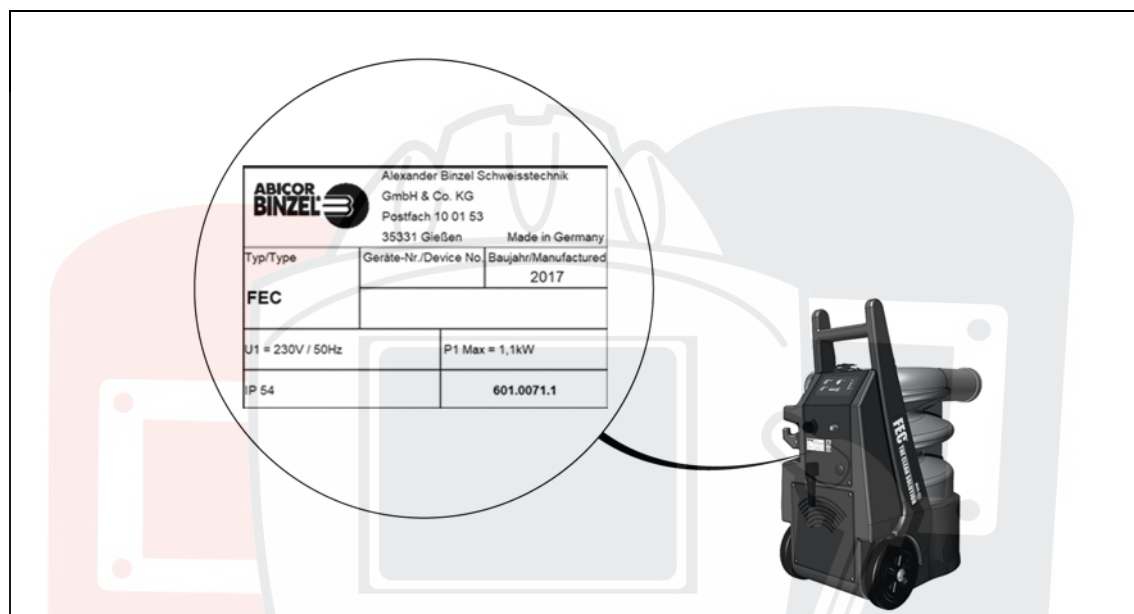


Fig. 1 Nameplate

When making inquiries, note the following information:

- Device type, device number, year of construction

3.4 Signs and symbols used

The following signs and symbols are used in the operating instructions:

Symbol	Description
•	Bullet symbol for instructions and lists
⇒	Cross reference symbol refers to detailed, supplementary or further information
1	Step(s) described in the text to be carried out in succession

4 Scope of delivery

• Fume extraction system with power supply of 115/230 V	• Extraction hose (l = 5.00 m)
• Rubber connector	• Dust collecting bag (5 pieces)

Tab. 5 Scope of delivery

Order the equipment parts and wear parts separately. The order data and ID numbers for the equipment parts and wear parts can be found in the current product catalog. Contact details for support and placing orders can be found online at www.binzel-abicor.com.

4.1 Transport

Although the items delivered are carefully checked and packaged, it is not possible to fully exclude the risk of damage during transport.

Goods-in inspection	Use the delivery note to check that everything has been delivered. Check the delivery for damage (visual inspection).
In case of complaints	If the delivery has been damaged during transport, contact the last carrier immediately. Retain the packaging for potential inspection by the carrier.
Packaging for returns	Where possible, use the original packaging and the original packaging material. If you have questions concerning packaging and safety during shipment, please consult your supplier, carrier or transporter.

Tab. 6 Transport

4.2 Storage

For ambient conditions for storage in a closed environment, see:

⇒ Tab. 3 Ambient conditions for transport and storage on page EN-7

5 Functional description

DANGER

Risk of fire

Before installing and operating the fume extraction system, please observe the following:

- The extraction of welding fume during welding of oil-wetted parts is not allowed.
- It is not allowed to install or operate the system in areas subject to dust or gas explosion hazards.
- Before commissioning, it must be checked if the operating voltage given on the nameplate corresponds to the mains voltage.
- Observe the operating, maintenance and servicing conditions.

NOTICE

- The FEC fume extraction system may be used only in environments with sufficient ventilation.
- The fume extraction system is equipped with a control device (filter display, control panel on the right) for monitoring the minimum volume flow.

⇒ 5.1 Control elements on page EN-11

⇒ Fig. 2 Functional description on page EN-10

The FEC is equipped with an extraction system (8). Due to the vacuum created by the extraction system, air is sucked in through the hose connected to the inlet (2). A permanent filter (7) in the filter housing (1) eliminates the dust from the air that is drawn in. The cleaned air is then returned to the room via an air exhaust louver.

When dedusting the filter cartridge (7), the particles are collected in the filter housing (1) and can be emptied into a dust collecting bag and then disposed of.

The fume extraction system is equipped with an automatic starting function, which means the system can start automatically. For this function, a ground cable is laid in the integrated automatic Start-Stop system (6). The automatic starting function is switched on and off on the control panel.

⇒ 6.2.2 Automatic starting functions on page EN-14

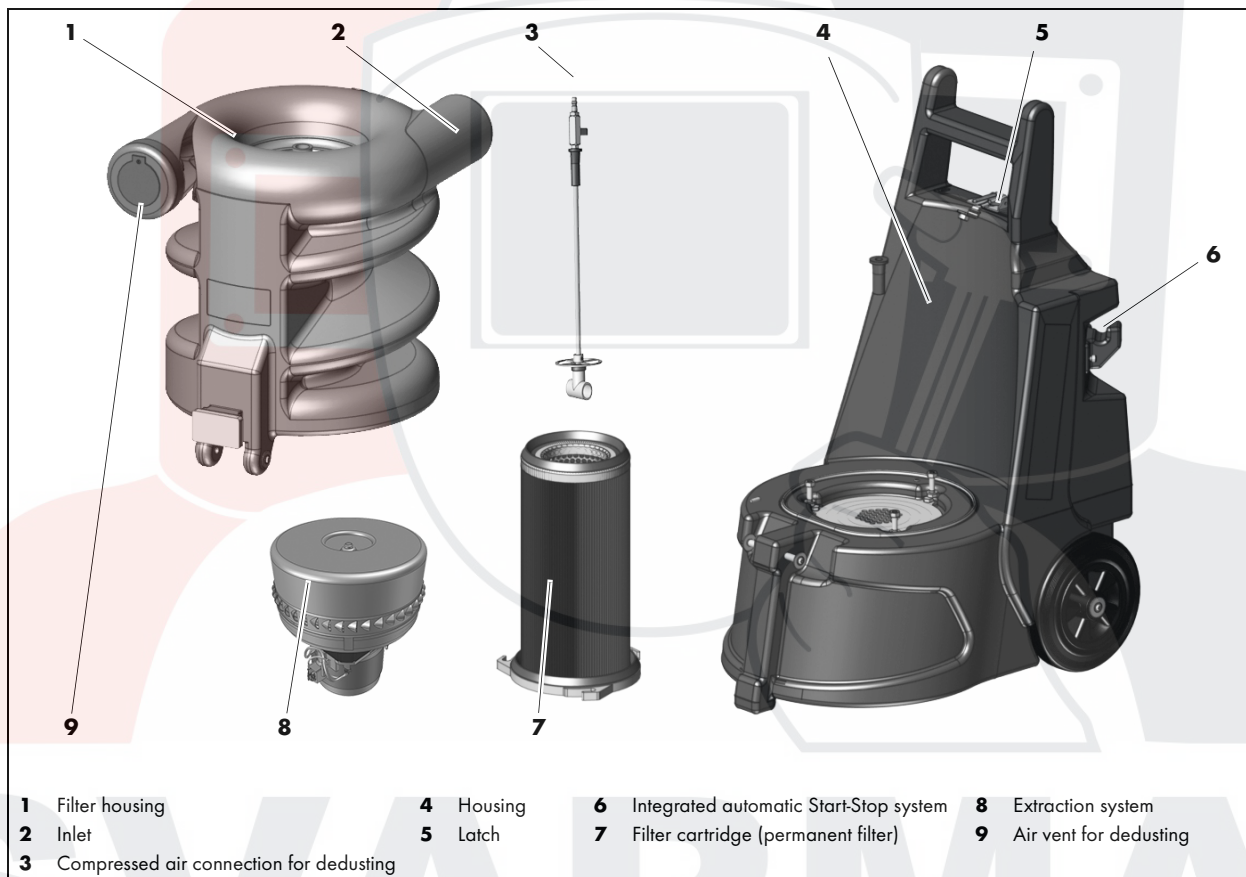


Fig. 2 Functional description

5.1 Control elements

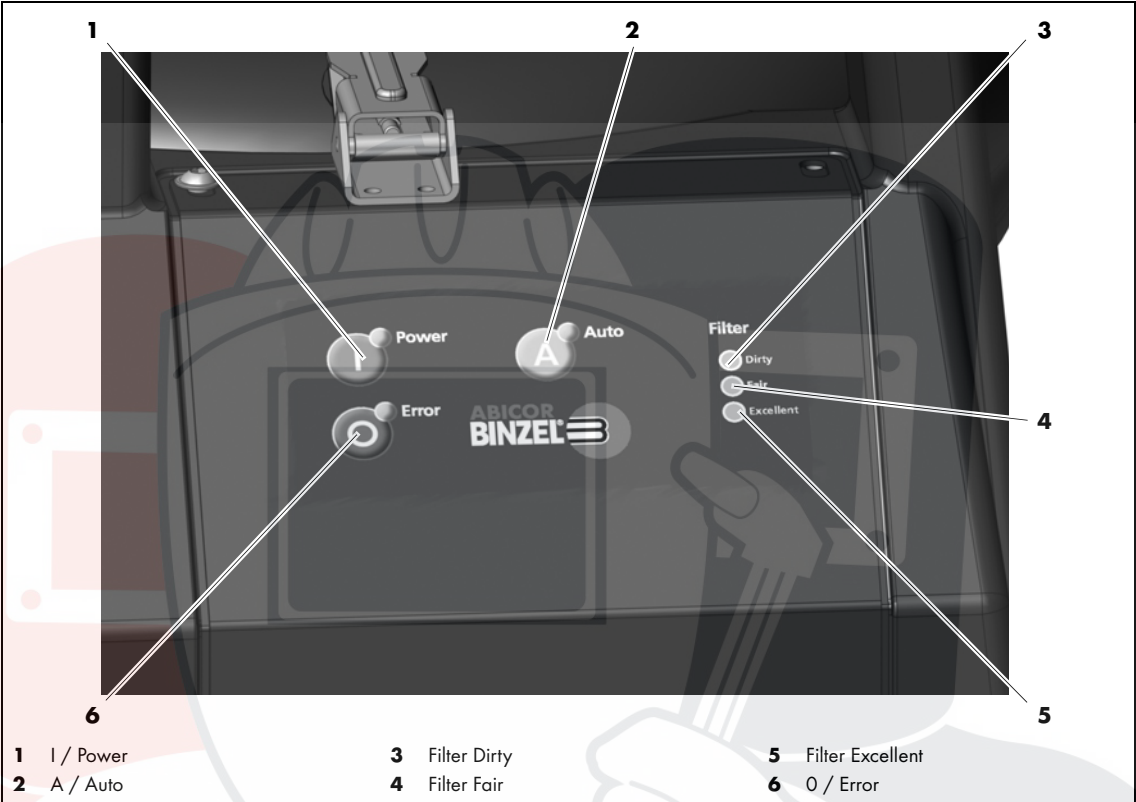


Fig. 3 Control elements

Button	Description
I / Power	Power switch (manual mode)
O / Error	Off/error message
A / Auto	Automatic mode
Filter / Dirty	Clean the filter
Filter / Fair	Status for operation is OK
Filter / Excellent	Filter is clean

Tab. 7 Control elements

6 Commissioning

DANGER

Risk of injury due to unexpected start

The following instructions must be followed during all maintenance, servicing, assembly, disassembly, and repair work:

- Switch off the FEC fume extraction system.
- Close off the compressed air supply.
- Disconnect all electrical connections.

NOTICE

- Please note the following instructions:
⇒ 3 Product description on page EN-7
- The system may be installed and commissioned only by qualified personnel (in Germany, see TRBS 1203).

6.1 Transport and installation

Select a location that allows a short and straight extraction hose feed and prevents it from entering the employee's space of movement.

CAUTION

Risk of injury

Damage from improper use

- Avoid abrupt lifting and setting down.
- Be sure that the filter housing does not make contact if you pass over edging, because damage to the filter housing could occur.
- Do not lift the components above persons or other devices.
- Wear your personal protective equipment: safety shoes with steel toe caps, protective gloves, ear protectors.
- Send bystanders out of the danger zone.
- Note the weight of the fume extraction system when lifting it.
⇒ 3.1 Technical data on page EN-7

CAUTION

Risk of toppling

Physical injury or damage to the fume extraction system due to improper assembly.

- Disconnect the supply lines.
- Place the fume extraction system on a suitable base (flat, solid, dry) on which it will not topple over.

NOTICE

- Protect the components against rain and direct sunlight.
- Use the device only in dry, clean and well-ventilated rooms.

6.2 Connecting and starting

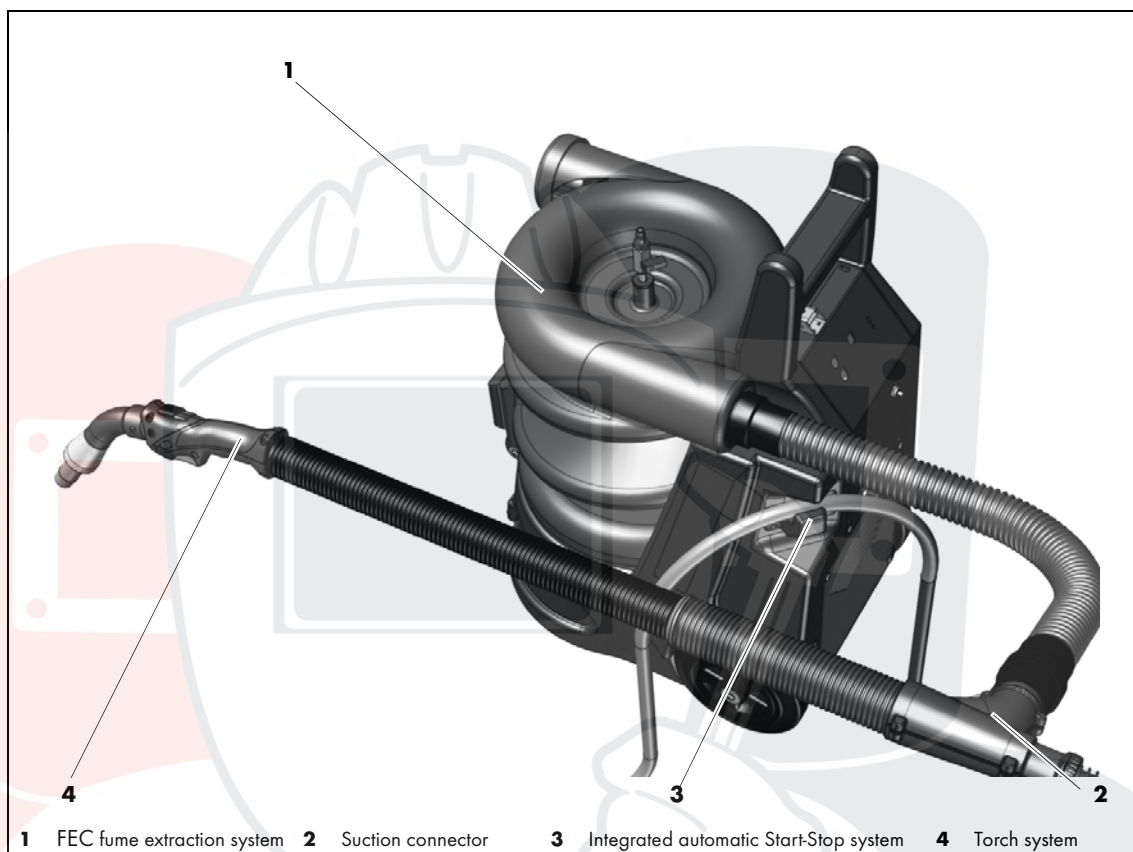


Fig. 4 Commissioning

- 1 Connect the torch system (4), hose, and rubber connector to the fume extraction system (1).
 - 2 Plug in the power plug.
 - 3 Switch on the fume extraction system on the control panel with the I / Power button.
- ⇒ Fig. 3 Control elements on page EN-11

NOTICE

- An external current clamp can be added on and is available as an accessory.
⇒ 6.3 Current clamp (optional) on page EN-15

6.2.1 Automatic starting

The automatic starting function allows the FEC to be automatically switched on when the welding process starts. Once the welding process begins, the FEC receives a signal and automatically starts the fume extraction process.

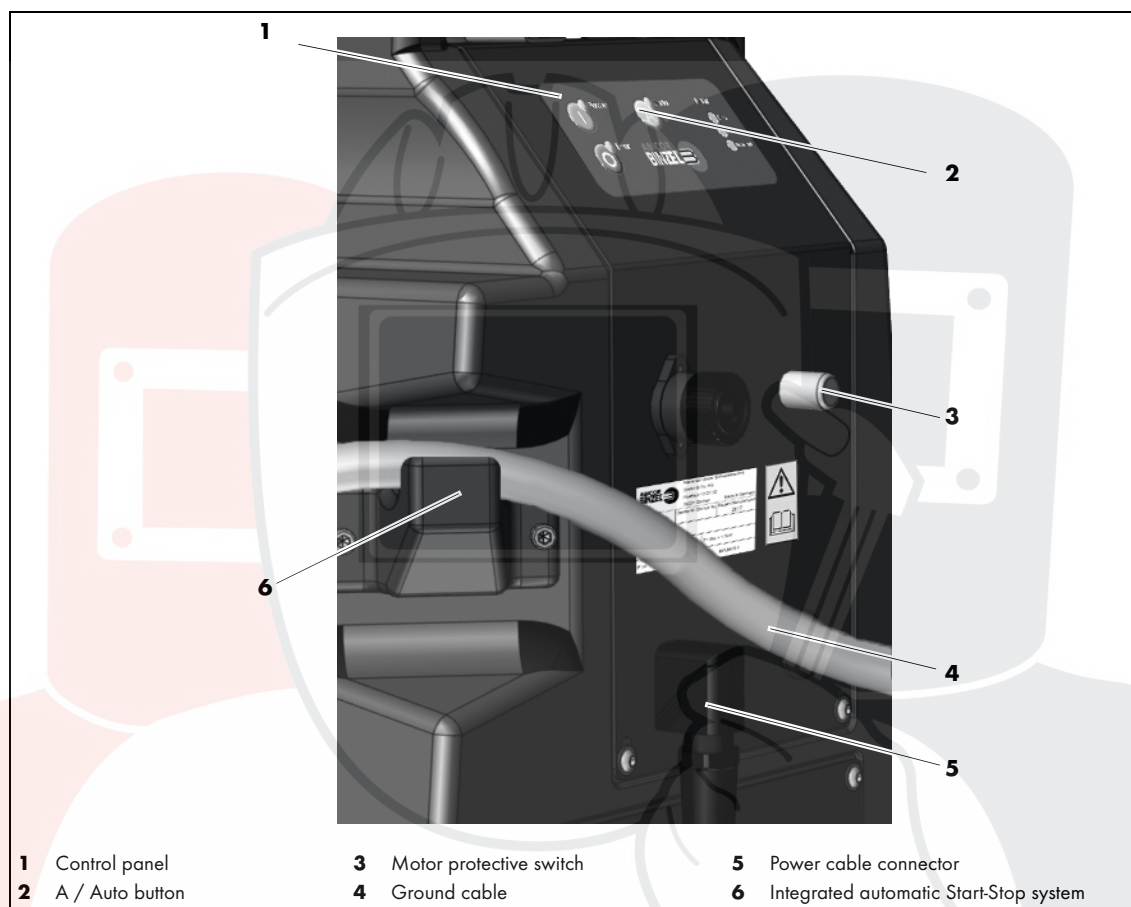


Fig. 5 Automatic starting

- 1 Lay the ground cable (4) in the integrated automatic Start-Stop system (6).
 - 2 Connect the ground cable (4) on one end to the power source and on the other end to the welding table, for example.
 - 3 Press the A / Auto button (2) on the control panel.
- ⇒ 5.1 Control elements on page EN-11
- The FEC starts automatically when the welding process is started.

6.2.2 Automatic starting functions

Button	Description
I / Power	Manual
0 / Error	OFF
A / Auto	Integrated automatic Start-Stop system active (system runs only when welding occurs with a run-on time of approx. 20 seconds)

Tab. 8 Automatic starting functions

6.3 Current clamp (optional)

If required by the welding conditions, a current clamp may be used instead of a ground cable. The clamp is connected to the FEC by the 4-pole plug and the ground cable or cable assembly is laid in it. Once the welding process begins, the FEC receives a signal and starts the fume extraction process.

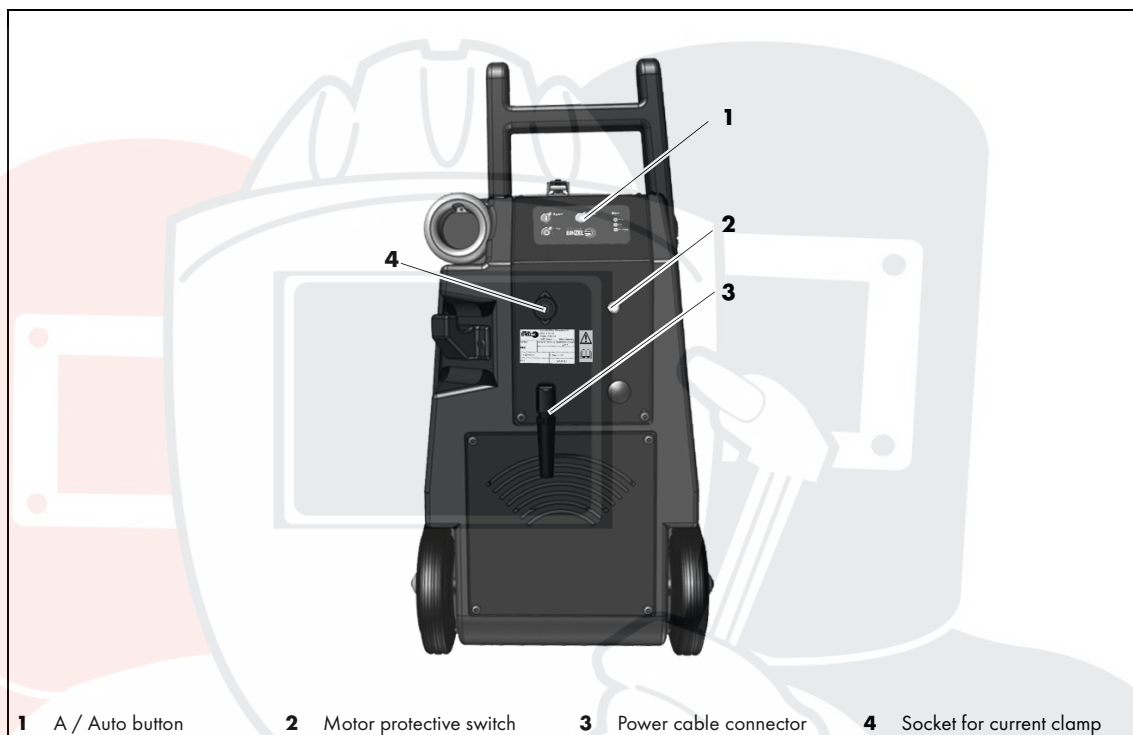


Fig. 6 Current clamp

- 1 Connect the plug with the socket for current clamp (4).
- 2 Lay the ground cable or cable assembly in the current clamp.

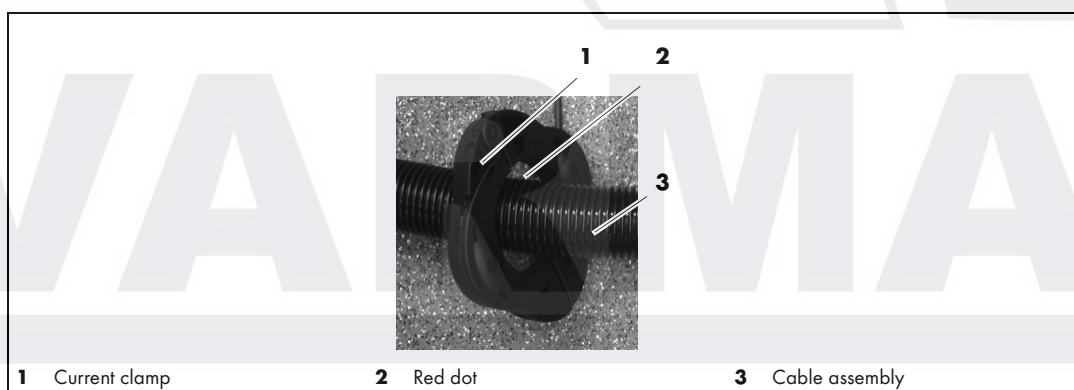


Fig. 7 Cable assembly laid in current clamp

NOTICE

- You must ensure that the red dot on the current clamp always faces the direction of the current flow.

- 3 Press the A / Auto button (1) on the control panel..

The fume extraction system starts automatically when the welding process starts.

6.4 Connector for separate exhaust air hose

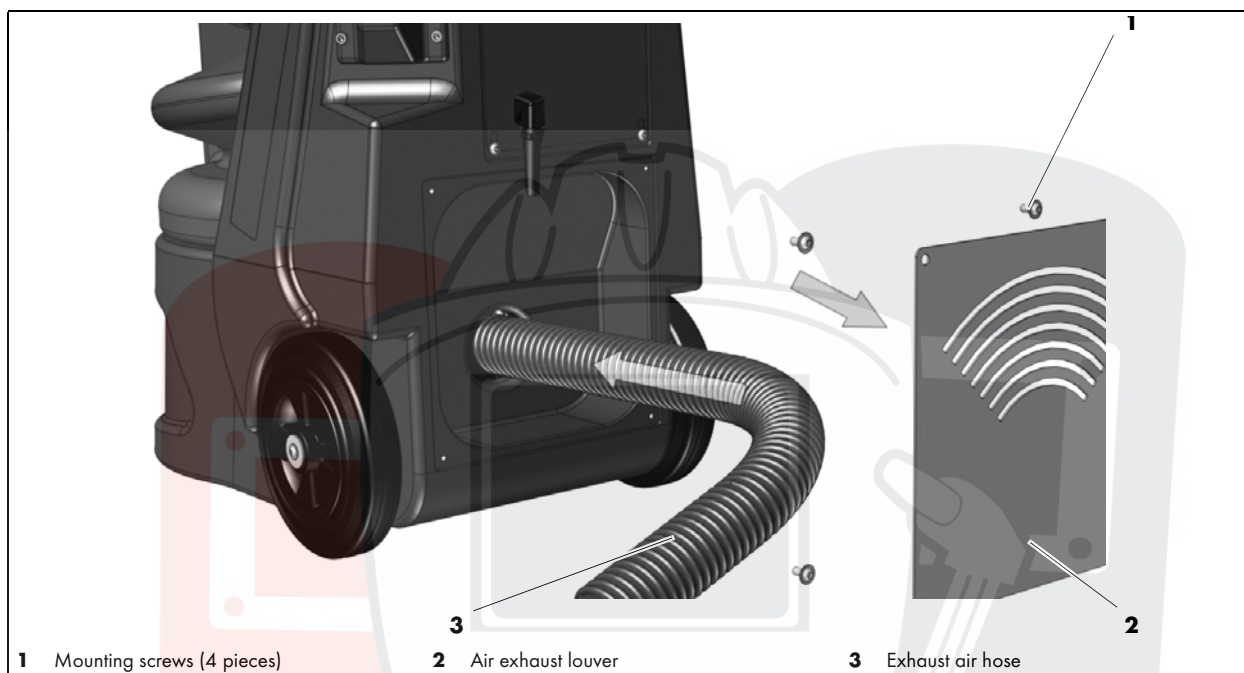


Fig. 8 Separate exhaust air hose

- 1 Loosen the mounting screws (1).
- 2 Dismantle the air exhaust louver (2).
- 3 Connect the exhaust air hose (3) to the fume extraction system.

6.5 Establishing the electrical connection

⇒ 13.1 Circuit diagram on page EN-27

⚠ WARNING

Electric shock

Dangerous voltage due to defective cables.

- Check all live cables and connections for proper installation and damage.
- Replace any damaged, deformed, or worn parts.

NOTICE

- Before an electrical connection between the product and the power supply is established, check that the operating voltage specified on the nameplate matches the actual voltage.

7 Operation

CAUTION

Risk of injury

Damage from improper use

- Be sure that the housing does not make contact if you pass over edging, because damage to the housing could occur.
- Do not point the suction hose at a person and do not use the product to clean clothing.
- Do not suction up flammable substances or liquids.
- Provide sufficient ventilation during operation of the fume extraction system.

⇒ 6.1 Transport and installation on page EN-12

NOTICE

- The system may be operated only by qualified personnel (in Germany, see TRBS 1203).
- Also consult the operating instructions for the welding components.

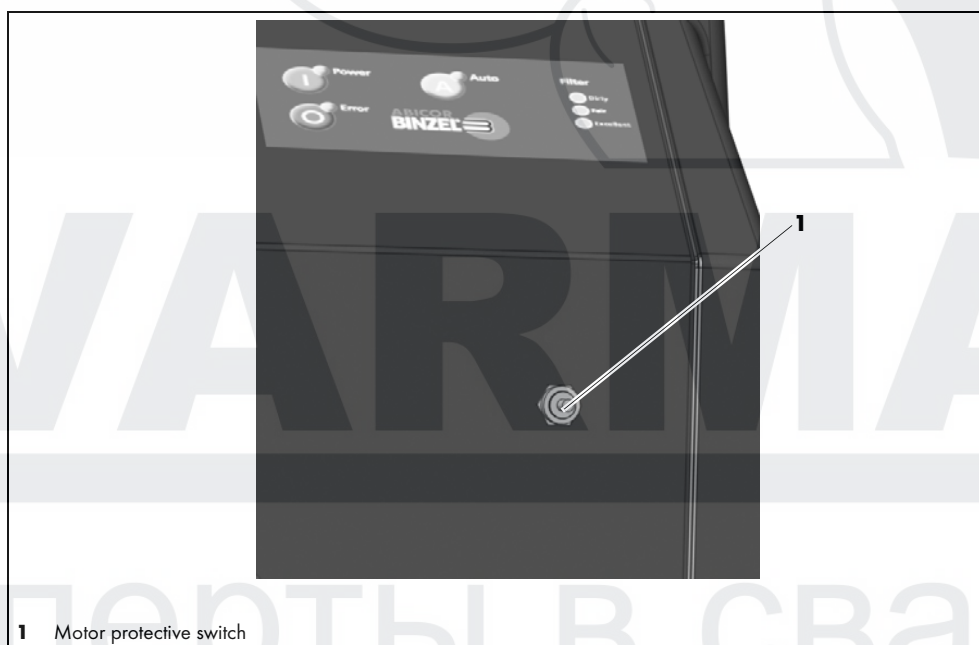
8 Decommissioning

- 1 Switch off the fume extraction system on the control panel with the "0 / Error" button.
- 2 Disconnect the fume extraction system from the power supply.
- 3 If necessary, disconnect the fume extraction system from the compressed air supply and ground cable.

NOTICE

- If the motor protective switch (1) is triggered, check for the cause. Reset it once the cause has been remedied.

⇒ 10 Troubleshooting on page EN-25



1 Motor protective switch

Fig. 9 Motor protective switch

9 Maintenance and cleaning

Scheduled maintenance and cleaning are prerequisites for a long service life and trouble-free operation.

DANGER

Risk of injury due to unexpected start

The following instructions must be followed during all maintenance, servicing, assembly, disassembly, and repair work:

- Switch off the FEC fume extraction system.
- Close off the compressed air supply.
- Disconnect all electrical connections.

WARNING

Electric shock

Dangerous voltage due to defective cables.

- Check all live cables and connections for proper installation and damage.
- Replace any damaged, deformed, or worn parts.

NOTICE

- Before performing any maintenance and cleaning work, suitable safety measures must be taken.
- Maintenance and cleaning work on the fume extraction system may only be carried out in areas with locally filtered forced ventilation.
- Maintenance and cleaning work may be carried out only by qualified personnel (in Germany, see TRBS 1203).
- Always wear personal protective equipment when performing maintenance and cleaning work.
- Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.

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9.1 Maintenance intervals

The fume extraction system must be cleaned and inspected as part of maintenance by qualified personnel. Any dirty parts that cannot be cleaned adequately must be replaced. These dirty parts must be placed in bags that are impermeable (so dust cannot escape) and disposed of in accordance with regulatory stipulations.

NOTICE

- The specified maintenance intervals are standard values and refer to single-shift operation.
- We recommend recording the inspections. The date of the inspection, the detected defects and the name of the inspector must be recorded.

Check the following:

Every day	Every month	Every year
<ul style="list-style-type: none"> • Visual inspection: Fume extraction system or parts of system damaged? 	<ul style="list-style-type: none"> • Visual inspection: Filter untight or dirty? (trails of dust or deposits on the air outlets) ⇒ 9.4 Changing the filter on page EN-22 	<ul style="list-style-type: none"> • Visual inspection: Dust in the turbine area? Remove dust using an industrial vacuum cleaner or a damp disposable cloth.
<ul style="list-style-type: none"> • Visual inspection: Cable connections damaged? 	<ul style="list-style-type: none"> • Visual inspection: Exhaust air filter untight or dirty? ⇒ 9.5 Changing the exhaust air filter on page EN-24 	<ul style="list-style-type: none"> • Check that the dust collecting drawer is air tight.
<ul style="list-style-type: none"> • Filling level of the dust collecting drawer ⇒ 9.3 Emptying the filter housing on page EN-21 		
<ul style="list-style-type: none"> • Visual inspection: Are the seals damaged? 		

Tab. 9 Maintenance intervals

9.2 Filter dedusting

NOTICE

- Always wear personal protective equipment when performing maintenance and cleaning work.
- Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.
- Personal protective equipment must be worn when in the vicinity of the dust collecting bag as it is being filled with the separated dust.
- The filter should be cleaned at least once per work shift, depending on how often the system is used.
- The filter must be cleaned immediately if the "Dirty" LED is illuminated on the control panel.

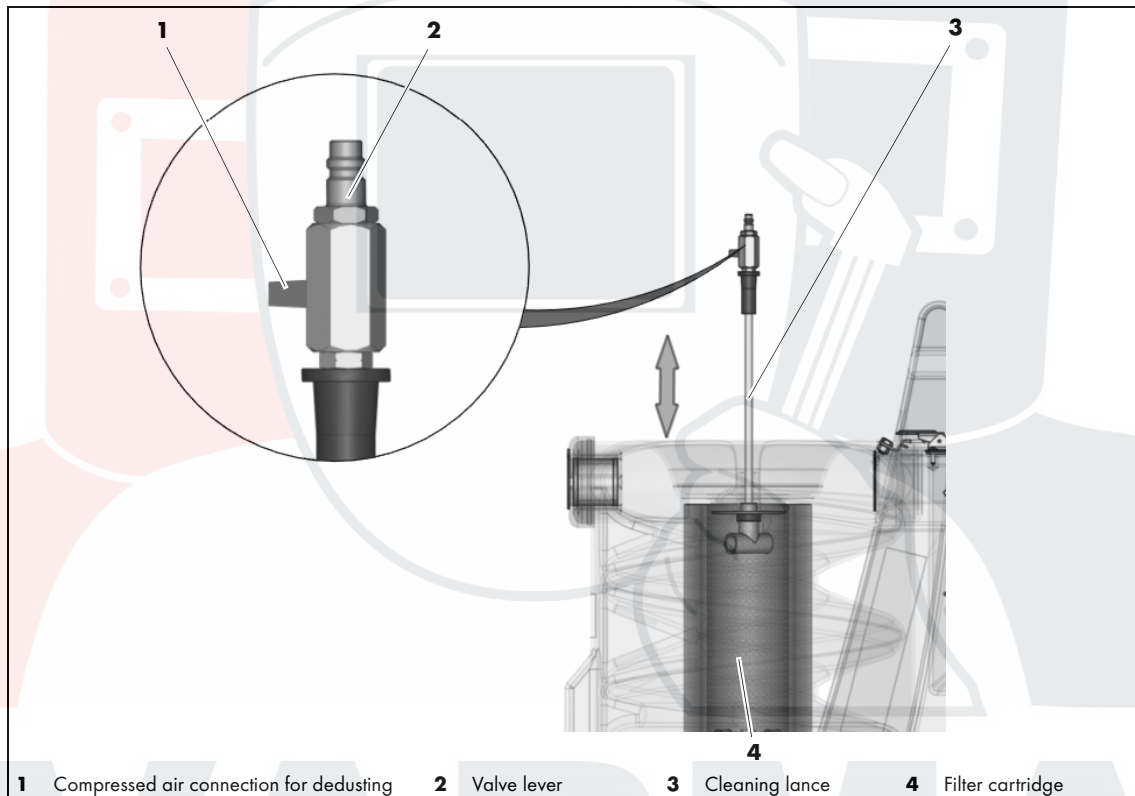


Fig. 10 Dedusting of the filter cartridge

NOTICE

- Use only dry and oil-free compressed air (min. 5 – max. 6,5 bar).

1 Connect the compressed air supply.

2 Open the valve lever **(1)** on the compressed air connector **(1)**.

The compressed air creates a dedusting jet and causes the dedusting nozzle to rotate inside the filter cartridge.

3 Manually move the cleaning lance **(2)** up and down.

The filter cartridge **(3)** is cleaned by manually moving the cleaning lance **(2)** up and down.

4 Close the valve lever **(2)** on the compressed air connector **(1)**.

5 After the system has been dedusted, disconnect the FEC from the compressed air connection.

6 Empty the separated dust from the filter housing in the supplied dust collecting bag.

⇒ Fig. 11 Emptying the filter housing on page EN-21

9.3 Emptying the filter housing

NOTICE

- Always wear personal protective equipment when performing maintenance and cleaning work.
- Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.
- Personal protective equipment must be worn when in the vicinity of the dust collecting bag as it is being filled with the separated dust.
- The filter housing (4) must be emptied after each dedusting of the filter.

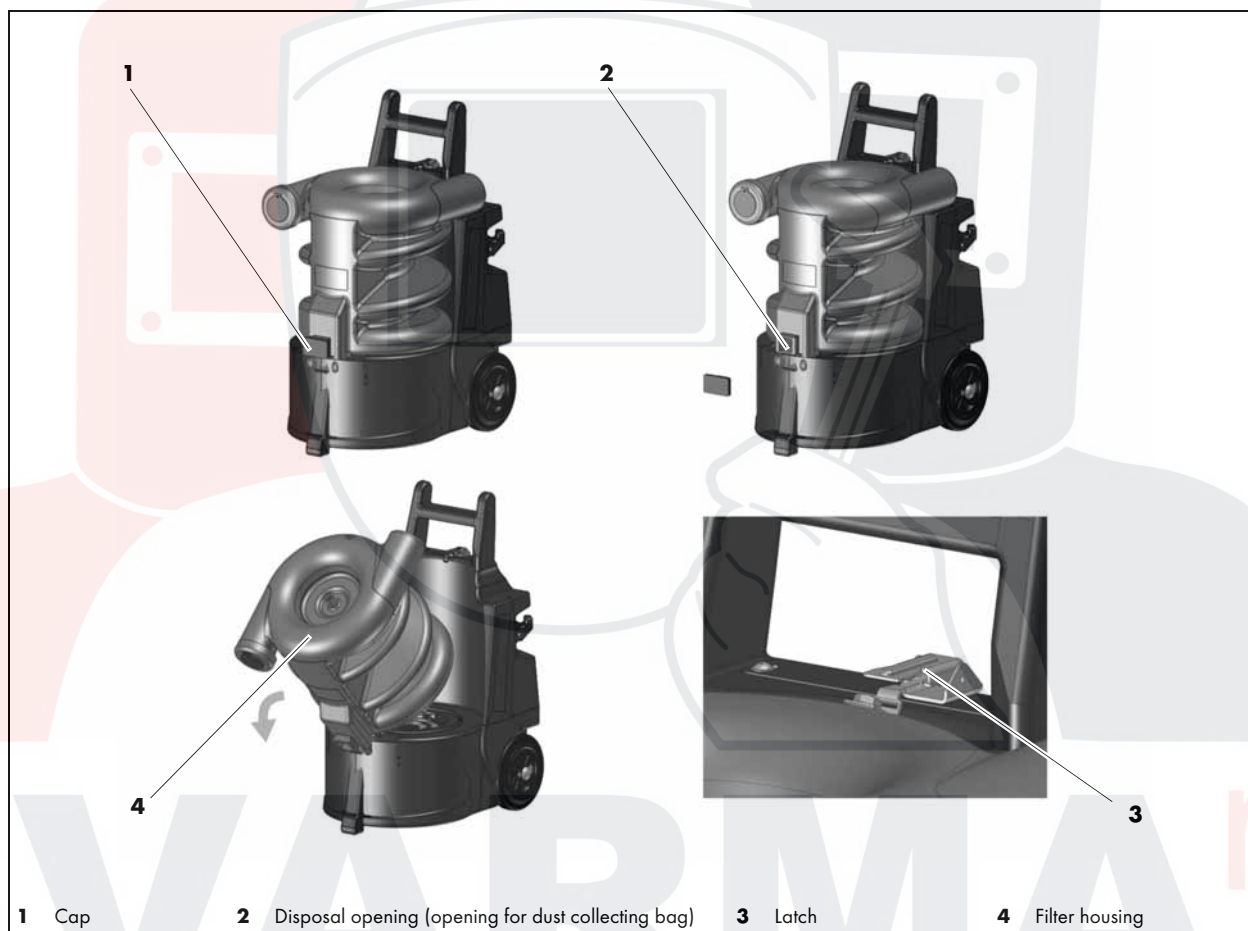


Fig. 11 Emptying the filter housing

- 1 Remove the cap (1).
- 2 Attach the dust collecting bag to the disposal opening (2).
- 3 Unlock the latch (3) between the filter housing (4) and the housing.
- 4 Tip the filter housing (4) forward and empty the filter housing completely of dust by tapping on it.
- 5 Tip the filter housing (4) back and lock into place.
- 6 Remove the dust collecting bag from the disposal opening (2) and seal it.
- 7 Dispose of the dust collecting bag in accordance with local regulations.
- 8 Put the cap (1) back on.

9.4 Changing the filter

- 1 Switch off the power to the fume extraction system.
 - 2 Dedust the filter cartridge before changing the filter and empty the filter housing.
- ⇒ 9.2 Filter dedusting on page EN-20 and 9.3 Emptying the filter housing on page EN-21

CAUTION

- Always wear personal protective equipment when performing maintenance and cleaning work.
- Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.
- Personal protective equipment must be worn when in the vicinity of the dust collecting bag as it is being filled with the separated dust.

NOTICE

- The filter must be changed if, after multiple dedustings, the "Dirty" LED is still illuminated and no other error has occurred.
 - Before changing the filter, the filter must be dedusted and then the filter housing must be emptied.
- ⇒ 9.2 Filter dedusting on page EN-20 and 9.3 Emptying the filter housing on page EN-21

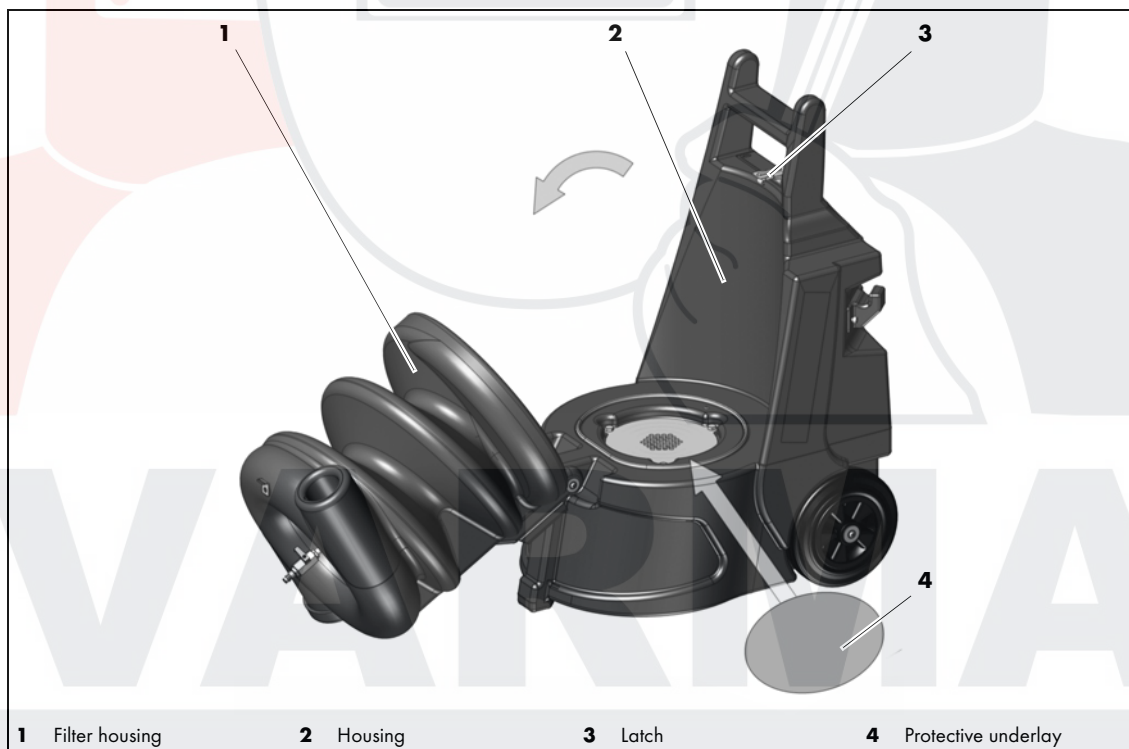


Fig. 12 Changing the filter

- 3 After the system has been dedusted, disconnect the FEC from the compressed air connection.
- 4 Unlock (3) the filter housing (1).
- 5 Tip the filter housing (1) forward.
- 6 Place the protective underlay (4) (in the package with the new filter cartridge) on the extraction system.

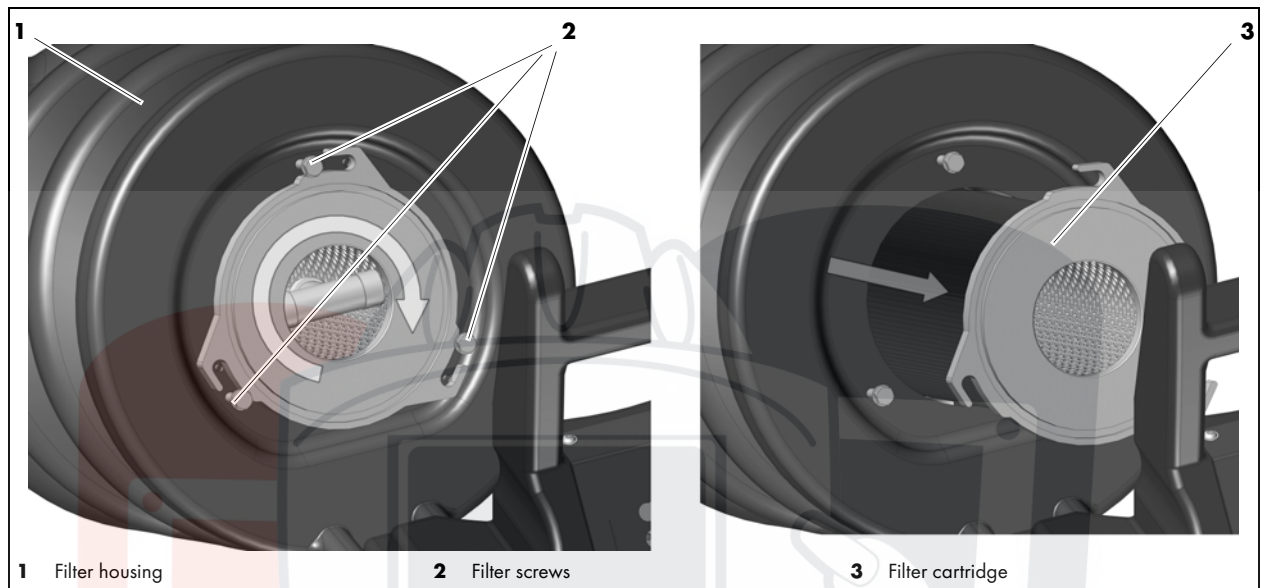


Fig. 13 Changing the filter

- 7** Loosen the filter screws **(2)**.
- 8** Unlock the filter cartridge **(3)** by turning it clockwise.
- 9** Carefully remove the filter cartridge **(3)** from the filter housing **(1)**.
- 10** As soon as the filter cartridge **(3)** protrudes from the filter housing **(1)** a few centimeters, place the filter bag (supplied with the new filter cartridge) over the filter cartridge **(3)**.
- 11** Once the filter cartridge **(3)** is completely in the filter bag, close the bag.
Dispose of it in accordance with local regulations.
- 12** Insert the new filter cartridge **(3)** in the tipped filter housing **(1)**.
Mounting takes place in reverse order.

NOTICE

- The tightening torque for the filter screws **(2)** is 10 Nm.

9.5 Changing the exhaust air filter

NOTICE

- Always wear personal protective equipment when performing maintenance and cleaning work.
- Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.
- Personal protective equipment must be worn when in the vicinity of the dust collecting bag as it is being filled with the separated dust.
- Replace the exhaust air filter every twelve months.

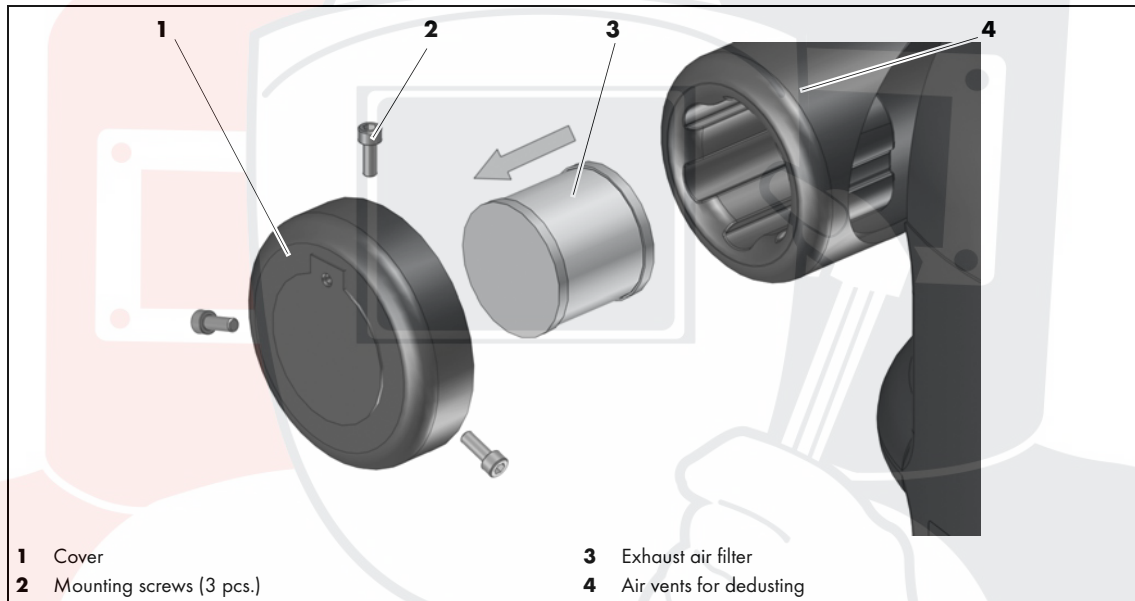


Fig. 14 Bypass filter

- 1** Switch off the power to the fume extraction system.
- 2** Loosen the mounting screws **(2)** on the cover **(1)**.
- 3** Remove the cover **(1)**.
- 4** Remove the exhaust air filter **(3)** and place it in an empty dust collecting bag. Dispose of it in accordance with local regulations.
- 5** Insert the new exhaust air filter **(3)**.
- 6** Put on the cover **(1)**.
- 7** Screw the mounting screws **(2)** in the cover **(1)**.
- 8** Switch on the fume extraction system.

10 Troubleshooting

⚠ DANGER**Risk of injury and device damage when handled by unauthorized persons**

Improper repair work and modifications to the product may lead to serious injuries and damage to the device.

The product warranty will be rendered invalid if work is carried out on the product by unauthorized persons.

- Operating, maintenance, cleaning, fault and repair work may only be carried out by qualified personnel (in Germany, see TRBS 1203).

⚠ CAUTION

- Before performing any maintenance and cleaning work, suitable safety measures must be taken.
- Maintenance and cleaning work on the fume extraction system may only be carried out in areas with locally filtered forced ventilation.
- Always wear personal protective equipment when performing maintenance and cleaning work.
- Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.

Note the attached document regarding the warranty. In the event of questions and/or problems, contact your retailer or the manufacturer.

Fault	Cause	Troubleshooting
Unit is not ready for operation	• Device component defective	• Have it checked and replaced
	• Extraction system defective	• Have it checked and replaced
	• Carbon brushes defective	• Have it checked and replaced
	• Fume extraction system cannot be switched on	• Switch off the power to the system Check motor protective switch
	• Reduced extraction capacity	• Clean the filter/empty the filter housing ⇒ 9.2 Filter dedusting on page EN-20 ⇒ 9.3 Emptying the filter housing on page EN-21
		• Switch off the power to the system Replace filter ⇒ 9.4 Changing the filter on page EN-22
		• Check suction hose for cross-section reduction and replace as needed
		• Check suction hose for damage and clogging
Dust emission during dedusting	• Exhaust air filter dirty	• Replace exhaust air filter ⇒ 9.5 Changing the exhaust air filter on page EN-24
Error message for 0 / Error LED: 8 short flashes	• Motor runtime > 8 hours	• Switch off the power to the system
Error message for 0 / Error LED: 3 short, 1 long, 4 short flashes	• Overheating > 60 °C	• Switch off the power to the system and let it cool down

Tab. 10 Troubleshooting

11 Disassembly

DANGER

Risk of injury due to unexpected start

The following instructions must be followed during all maintenance, servicing, assembly, disassembly, and repair work:

- Switch off the FEC fume extraction system.
- Close off the compressed air supply.
- Disconnect all electrical connections.

CAUTION

- Always wear personal protective equipment when dismantling the system.
- Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves and safety shoes.
- Personnel near the fume extraction system when it is being disassembled must wear personal protective equipment.
- It is not allowed to clean the fume extraction system using compressed air or a hammer.

NOTICE

- Disassembly may be carried out only by qualified personnel (in Germany, see TRBS 1203).
- Observe the information provided in the following section:
⇒ 10 Troubleshooting on page EN-25.

12 Disposal

When disposing of the system, local regulations, laws, provisions, standards and guidelines must be observed. To correctly dispose of the product, it must first be disassembled.

12.1 Materials

This product is mainly made of metallic materials that can be melted in steel and iron works and are thus almost infinitely recyclable. The plastic materials used are labeled in preparation for their sorting and separation for later recycling.

12.2 Consumables

Oil, greases and cleaning agents may not contaminate the ground or enter the sewage system. These substances must be stored, transported and disposed of in suitable containers. Observe the relevant local regulations and disposal instructions in the safety data sheets specified by the manufacturer of the consumables. Contaminated cleaning tools (brushes, rags, etc.) must also be disposed of in accordance with the information provided by the consumables' manufacturer.

The disposal of dust collecting bags is subject to special waste regulations. The dust must not enter sewage systems or be disposed of together with normal household waste. Observe the local and official regulations.

12.3 Packaging

ABICOR BINZEL has reduced the transport packaging to the necessary minimum. The ability to recycle packaging materials is always considered during their selection.

13 Appendix

13.1 Circuit diagram

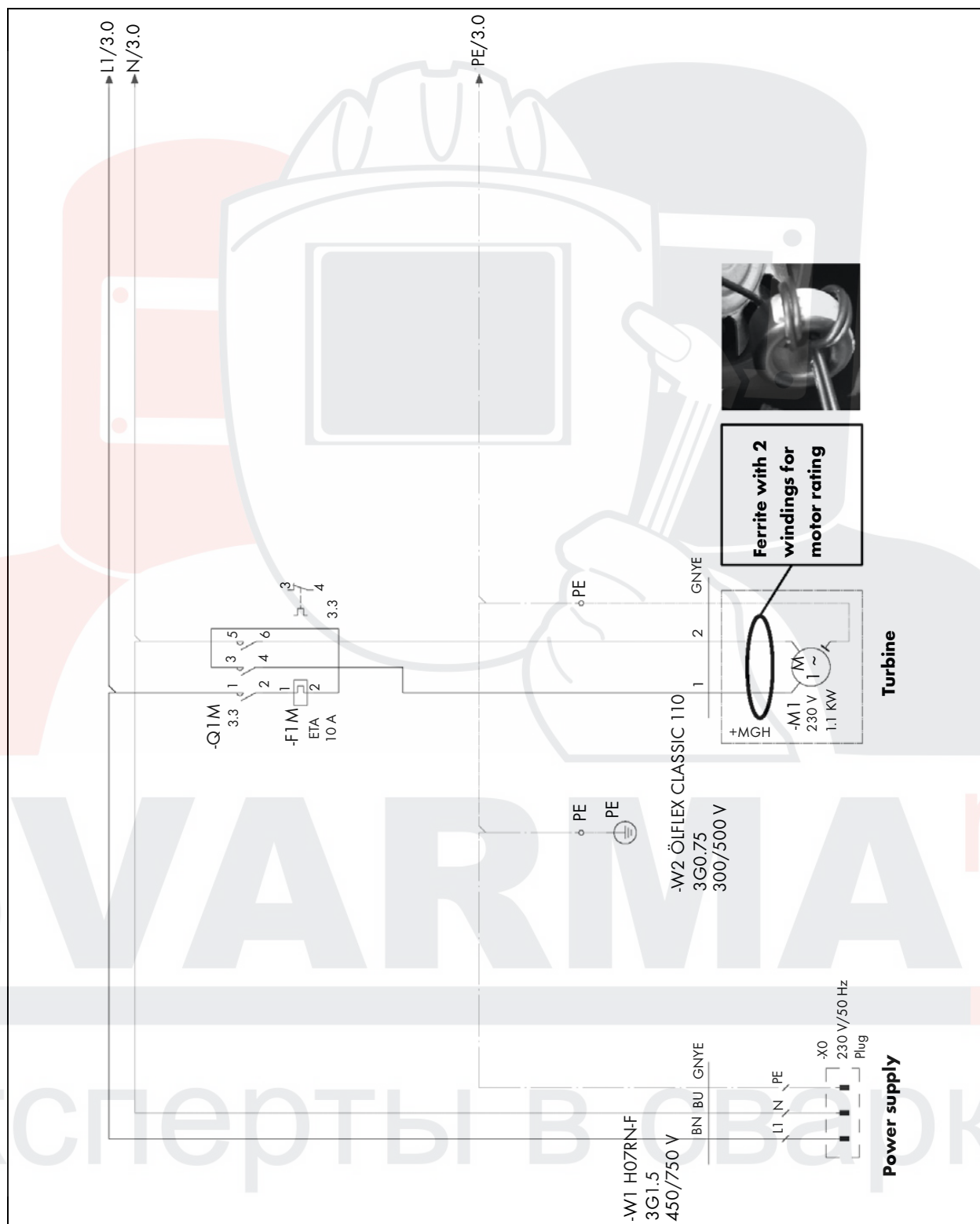


Fig. 15 Circuit diagram 230 V // 50 Hz

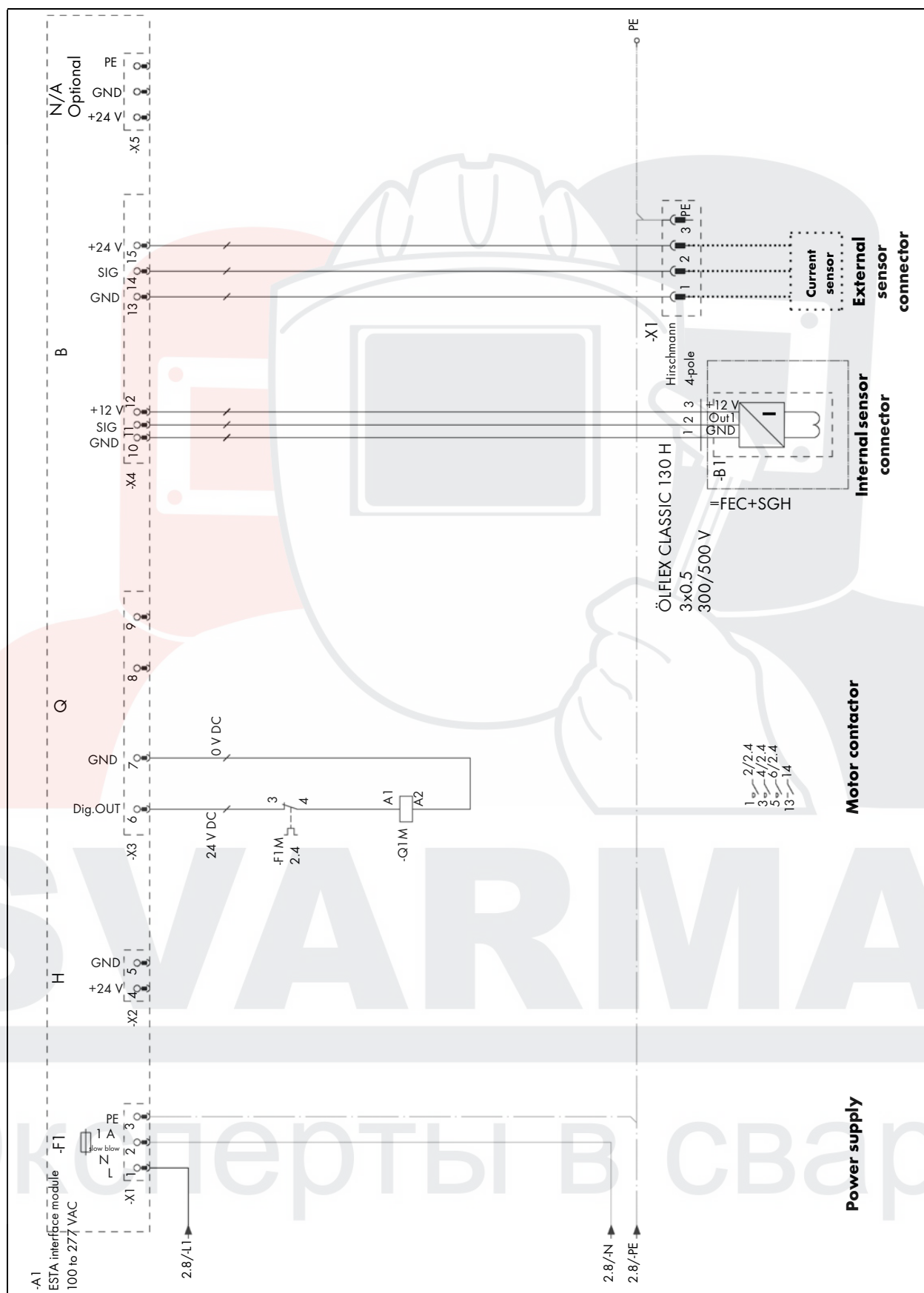


Fig. 16 Circuit diagram 230 V // 50 Hz

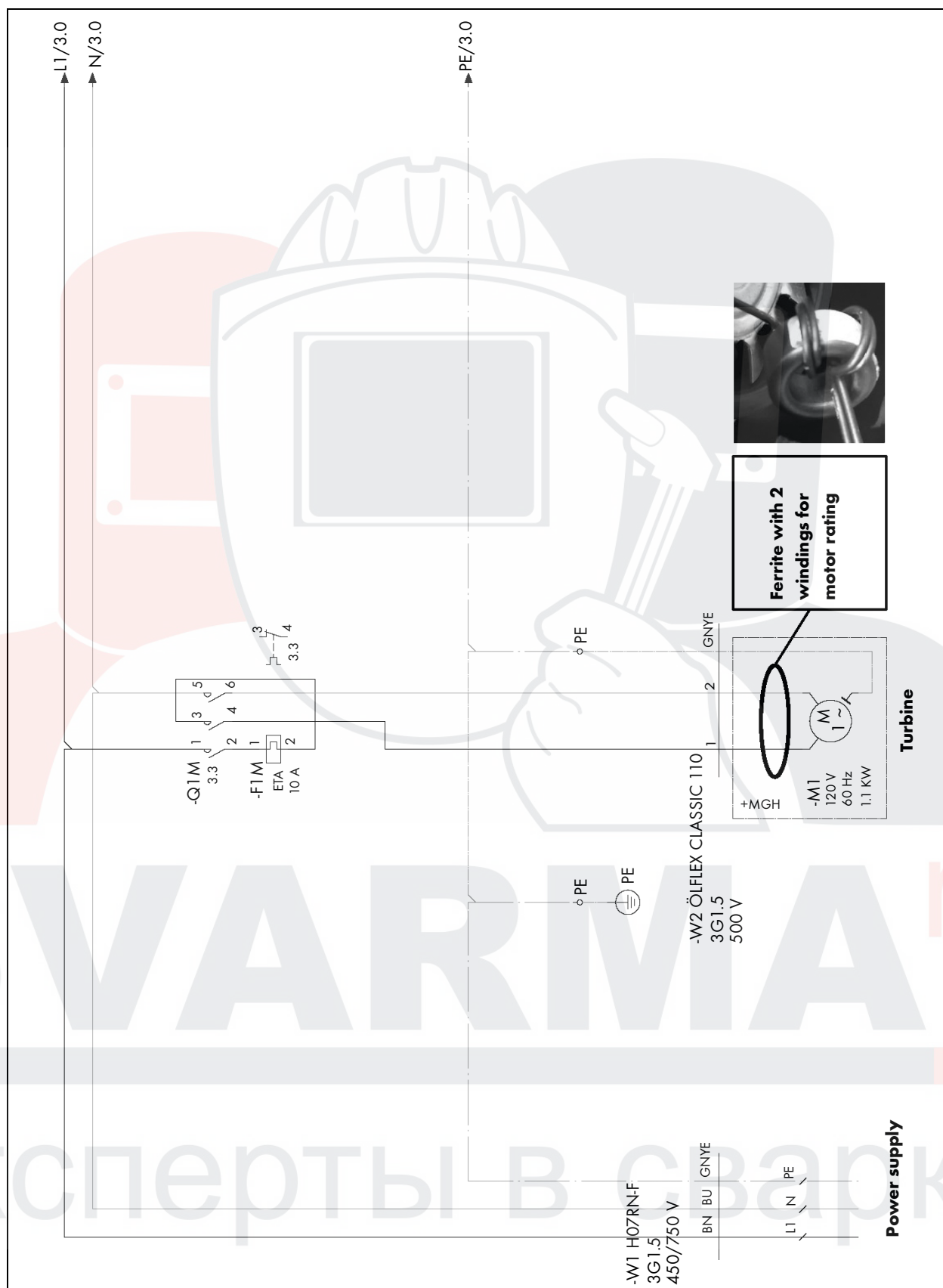
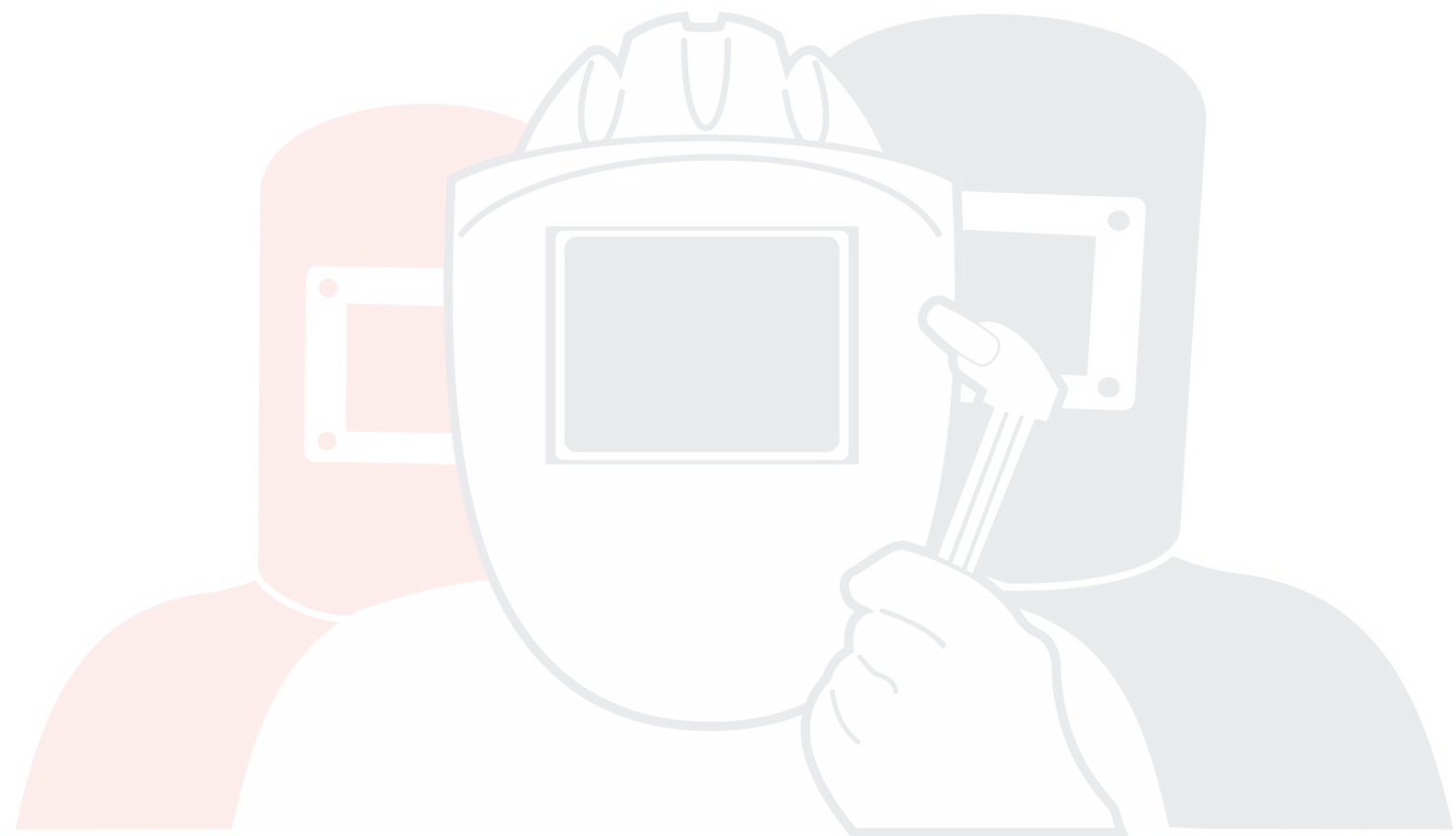


Fig. 17 Circuit diagram 115 V // 50/60 Hz

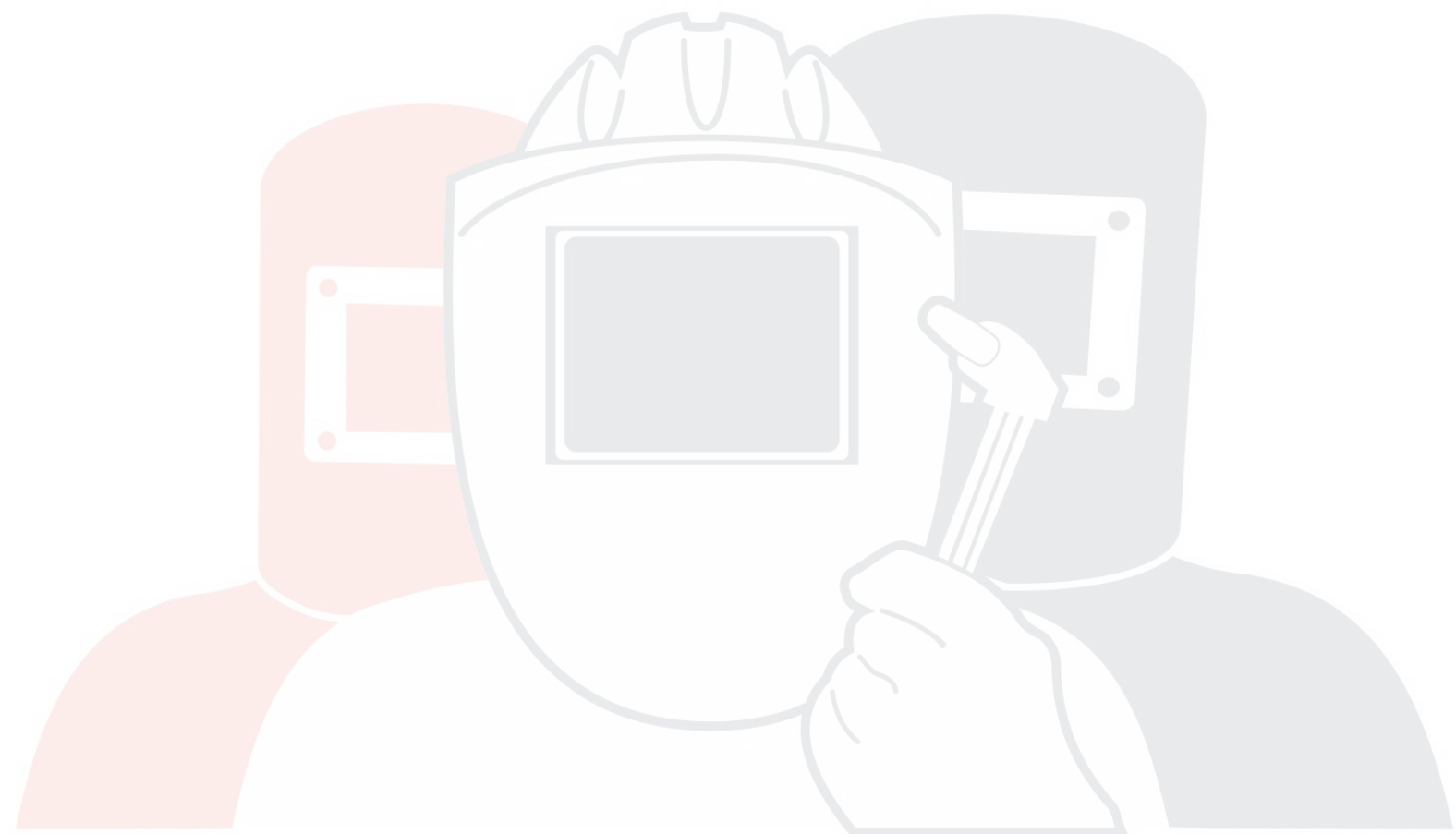
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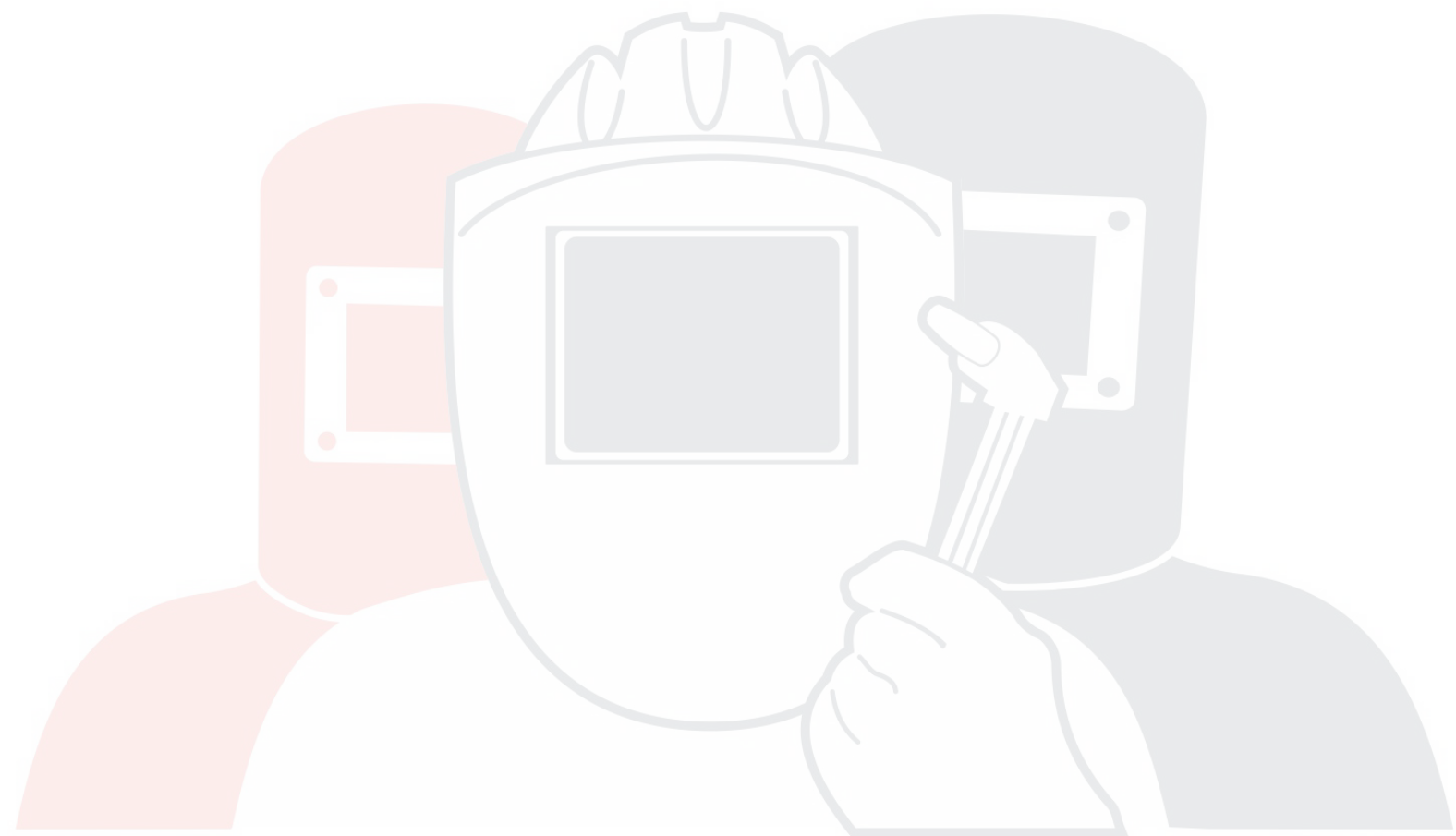
Эксперты в сварке

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Эксперты в сварке



Alexander Binzel Schweisstechnik GmbH & Co.KG
Postfach 10 01 53 • D-35331 Giessen
Tel.: ++49 (0) 64 08 / 59-0
Fax: ++49 (0) 64 08 / 59-191
Email: info@binzel-abicor.com

www.binzel-abicor.com