

P_04818

Spray Booth
Basic 4000
Original Operating Manual

UK CA

For professional use.
Always observe the information in this manual, particularly the safety instructions and the warning instructions. Store the manual in a safe place.

Edition: 07/2022

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1 ABOUT THESE INSTRUCTIONS

1.1 PREFACE

The operating manual contains information about safely operating, maintaining, cleaning and repairing the device. The operating manual is part of the device and must be available to the operating and service personnel.

The device may only be operated by trained personnel and in compliance with this operating manual. Operating and service personnel should be instructed according to the safety instructions.

This equipment can be dangerous if it is not operated according to the instructions in this operating manual.

1.2 WARNINGS, NOTICES AND SYMBOLS IN THESE INSTRUCTIONS

Warning instructions in this manual highlight particular dangers to users and to the device and state measures for avoiding the hazard.

These warning instructions fall into the following categories:

⚠	**DANGER**	Immediate risk of danger. Non-observance will result in death or serious injury.
⚠	**WARNING**	Potential danger. Non-observance may result in death or serious injury.
⚠	**CAUTION**	Potentially dangerous situation. Non-observance may result in minor injury.
ⓘ	**NOTICE**	Potentially dangerous situation. Non-observance may result in damage to property.
ℹ	**Info**	Provides information about particular characteristics and how to proceed.

Explanation of warning notice:

⚠ WARNING

This notice warns you of a danger!

Possible consequences of not observing the warning notice.

- ▸ The measures for preventing the hazard and its consequences.



1.3 GENERAL CHARACTERS AND SYMBOLS

The characters and symbols in this operating manual indicate the following:

- ✓ Requirement that must be fulfilled before an action can be performed.

1. Step 1 of an action to be performed with several action steps.
   - ▸ Second level action step
2. Step 2
   - ⇨ Intermediate result of an action

⇨ Result of a complete action

- ▸ Action to be performed with an action step

1. Numbered list, first level
   - – Numbered list, second level

- Non-numbered list, first level
  - Non-numbered list, second level

[⏩ 8] = cross-reference on page

♦ = wearing parts

⋆ = included in service set

● = not part of the standard equipment but available as a special accessory

1.4 LANGUAGES

The operating manual is available in the following languages:

Original operating manual

Language	Order no.
English	2440890

Additional languages upon request or at: www.wagner-group.com

1.5 ABBREVIATIONS

Order no.	Order number
ET	Spare part
K	Marking in the spare parts lists
Pos	Position
Stk	Number of pieces
--	Item not available as spare part
/	Item does not exist

1.6 TERMINOLOGY FOR THE PURPOSE OF THIS MANUAL

Cleaning

Cleaning	Manual cleaning of devices and device parts with cleaning agent.
Flushing	Internal flushing of paint-wetted parts with compressed air.

Personnel qualifications

Trained person	Is instructed in the tasks assigned to him/her, the potential risks associated with improper behavior as well as the necessary protective devices and measures.
Electrically trained person	Is instructed by an electrician about the tasks assigned to him/her, the potential risks associated with improper behavior as well as the necessary protective devices and measures.
Electrician	Can assess the work assigned to him/her and detect possible hazards based on his/her technical training, knowledge and experience in relevant provisions.
Skilled person	A person who, based on his/her technical training, experience and recent vocational experience, has sufficient technical knowledge in the area of electrostatic coating and is familiar with the relevant and generally accepted rules of technology so that he/she can inspect and assess the status of devices and coating systems based on workplace safety. Additional requirements for skilled persons: Expert knowledge in the areas of protection against excessive pressure, electrical hazards, and explosion protection (where applicable).

2 USING IN ACCORDANCE WITH THE INSTRUCTIONS

2.1 DEVICE TYPE

Spray booth for powder coating work pieces.

2.2 TYPE OF USE

The Basic 4000 suspension booth is suitable for the powder coating of single parts or small series with organic powder lacquer or in manual mode. Automatic mode is not permitted!

WAGNER explicitly prohibits any other use!

The device may only be operated under the following conditions:

- Do not deactivate safety fixtures.
- Use only WAGNER original spare parts and accessories.
- The operating personnel must be trained on the basis of this operating manual.
- Follow the instructions in the operating manual.

2.3 FOR USE IN POTENTIALLY EXPLOSIVE AREAS

The spray booth is not approved for operation in a potentially explosive atmosphere.

Info

The required minimum exhaust air volumetric flow, based on the quantity of powder used and its ignitability, is to be adhered to by the operator. This must not exceed the nominal exhaust air volumetric flow.

2.4 PROCESSIBLE WORKING MATERIALS

– Organic powder lacquers
– Metallic powder

Info

Contact your local WAGNER dealer and the lacquer manufacturer if you encounter application problems.

2.5 MISUSE

Misuse can lead to physical injury and/or property damage! Special attention must be paid that:

- No liquid coating products, e.g. solvents or water-based lacquers, are processed.
- No food, medicine or cosmetics are processed.

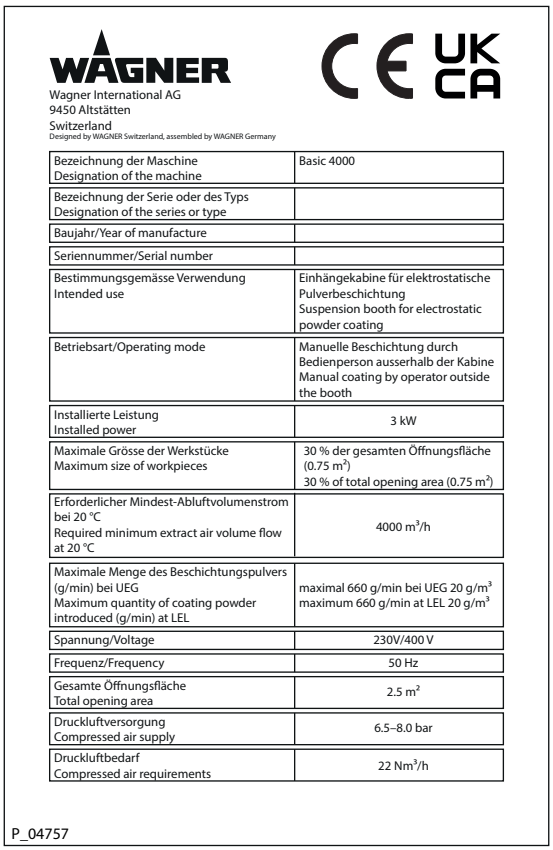
3 IDENTIFICATION

3.1 UKCA IDENTIFICATION

The spray booth is not approved for operation in a potentially explosive atmosphere.

Device type:	Basic 4000
Manufacturer:	Wagner International AG 9450 Altstätten Switzerland

3.2 TYPE PLATE



1	Manufacturer, CE/UKCA identification	9	Maximum size of work pieces
2	Designation of the machine	10	Minimum exhaust air volume flow
3	Designation of the series or type	11	Maximum powder quantity
4	Year of manufacture	12	Voltage
5	Serial number	13	Frequency
6	Using in Accordance with the Instructions	14	Total opening area
7	Operating mode	15	Compressed air supply
8	Installed power	16	Air consumption

4 BASIC SAFETY INSTRUCTIONS

4.1 SAFETY INSTRUCTIONS FOR THE OPERATOR



- Keep this operating manual at hand near the device at all times.
- Always follow statutory provisions concerning occupational safety and accident prevention regulations.

4.1.1 Electrical Devices and Equipment



Danger of electric shock!

Danger to life from electric shock:

- Place and operate device in accordance with the existing safety requirements with regard to the operating mode and ambient influences.
- May only be maintained by skilled electricians or under their supervision. With open housings, the mains voltage poses a danger.
- Operate device in accordance with the safety regulations and electrotechnical regulations.
- Do not disconnect any plug connections during operation.
- Label plug connections with the warning "Do not disconnect when energized".
- Must be repaired immediately in the event of problems.
- Decommission if device poses a danger or is damaged.
- Must be de-energized before work is commenced.
  - Secure the device against being switched back on without authorization.
  - Inform personnel about planned work.
  - Observe electrical safety regulations.
- Ground all devices to a common grounding point.
- Only operate the device with a properly installed socket with a protective ground wire connection.
- Keep liquids away from electrical devices.

4.1.2 A Safe Work Environment



Danger due to falling parts!

Serious or life-threatening injuries due to falling parts.

- Ensure sufficient, safe dimensioning of the customer-provided work piece suspension.



Danger due to dust formation!

Severe or fatal injuries due to explosion danger or inhalation, swallowing or contact with the skin or eyes.

- The floor in the work area must be electrostatically conductive (measurements according to BS EN 1081:2018+A1:2020 or BS EN 61340-4-1:2004+A1:2015).
- In the spray booth, coating may only be performed with correctly designed and locked technical ventilation.
- Make sure that grounding and potential equalization of all system parts is reliably and permanently in effect and that they withstand the loads to be expected (e.g. mechanical, corrosion).

- Make sure that the personal protective equipment (see Chapter "Personal Protective Equipment") is present and being used.
- Make sure that all people within the work area wear static dissipative shoes. Footwear must comply with BS EN 20344:2011. The measured insulation resistance must not exceed 100 MΩ.
- Protective clothing, including gloves, must comply with BS EN 1149-5:2018. The measured insulation resistance must not exceed 100 MΩ.
- Ensure that there are no ignition sources such as naked flames, sparks, glowing wires, or hot surfaces in the spray booth. Do not smoke.
- A suitable system for suppressing fire and explosion must be installed.
- The powder release must be electrically interlocked with the connected technical ventilation of the spray system.
- Excess coating product (overspray) must be collected up safely.
  Accumulations of powder in the spray booth is to be avoided. Set the parameters of the floor cleaning and manually clean the spray booth as needed.
- Ensure that maintenance and safety checks are performed regularly.
- In case of defects, immediately shut down the device or system and repair before switching back on.
  Accumulations of powder are to be removed before switching the system back on.
- The operator/responsible person must ensure that an average concentration of powder lacquer in the air of 50% of the lower explosion limit (max. permitted powder/air concentration) is not exceeded. If there is no reliable lower explosion limit value, the average concentration of 20 g/m^3 must not be exceeded.

4.1.3 Personnel Qualifications

Danger due to incorrect use of device!

Risk of death due to untrained personnel.

- Ensure that the operating personnel has been instructed by the operator in accordance with the operating manual and the operating instructions. The device must only be operated, maintained and repaired by trained personnel. Refer to the operating instructions for information about the required personnel qualifications.

4.2 SAFETY INSTRUCTIONS FOR THE PERSONNEL



- Always observe the information in this manual, particularly the safety instructions and the warning instructions.
- Always follow statutory provisions concerning occupational safety and accident prevention regulations.

Danger due to high-voltage field!



Danger to life from malfunction of active implants.

- Persons belonging to a risk group as defined by the UK statutory requirement SI 2016 No. 588 (EMF) (e.g., carriers of active implants), must not enter the high-voltage area.

4.2.1 Personal Safety Equipment

Danger due to dust formation!



Serious or fatal injuries due to inhalation, swallowing or contact with the skin or eyes.

- Observe the processing regulations laid down by the manufacturer of the powder lacquer being used, when preparing or processing the powder.

- Take note of the manufacturer's notification and the relevant environmental protection regulations when disposing of powder lacquers.
- Take the specified protective measures, in particular wear safety goggles, protective clothing and gloves, as well as skin protection cream if necessary.
- Use a mask or breathing apparatus if necessary.
- For sufficient health and environmental protection, only operate the device with technical ventilation (extraction) switched on.

Danger due to noise pollution!



Hearing damage due to noise pollution.

- Wear ear protection.

4.2.2 Safe Handling of WAGNER Powder Spray Devices

Danger due to dust formation!



- Do not point spray guns at people.
- Do not spray device parts using electrostatic equipment.
- Before any work on the device, in the event of work interruptions and malfunctions:
  - Switch off the energy/compressed air supply.
  - Relieve pressure on spray gun and device.
  - Secure the spray gun against actuation.
  - Disconnect the control unit from the mains.
  - In the event of functional faults, remedy the fault as described in the chapter on troubleshooting.
- Carry out the work steps in accordance with the chapter on pressure relief in the operating manual of the corresponding device:
  - If a prompt for pressure relief is given.
  - If coating work is interrupted or stopped.
  - Before the device is externally cleaned, checked or serviced.
  - Before the spray nozzle is installed or cleaned.

4.2.3 Grounding the Device

Danger due to electrostatic charge!



Explosion hazard and damage to the device.

The electrostatic charge may, in certain cases, give rise to electrostatic charges on the device. Flames or sparks can form during discharge.

Correct grounding of the entire coating system prevents electrostatic charges:

- Ensure that all devices and tanks are grounded before each coating process.
- All conductive components of the system, such as floors, walls, ceilings, barriers, transport equipment, work pieces, powder tanks, moving devices or structural parts in the spray area, with the exception of parts under high voltage during operation, must be connected to the grounding system.
  Parts of the spray booth must be grounded.
- Ensure that all persons inside the working area are grounded, e.g., that they are wearing static dissipative shoes.

- Grounding cables must be checked regularly to ensure that they are functioning properly (see BS EN IEC 60204-11:2019).

4.2.4 Product Hoses



Danger due to damaged product hoses!

The product hose may cause dangerous injuries.

- Use only an original WAGNER powder hose.
- Make sure that the hoses are laid only in suitable places. Hoses should not be laid in the following places under any circumstances:
  - in high traffic areas
  - on sharp edges
  - on moving parts
  - on hot surfaces
- Ensure that the hoses are never run over by vehicles (e.g., fork lifts), or that the hoses are never put under pressure from the outside in any other way.
- Ensure that the hoses are never kinked. Observe maximum bending radii.
- Ensure that no work is ever performed with a damaged hose.
- Make sure that the hoses are never used to pull or move the device.

4.2.5 Electrical Connection Cables

Risk caused by improperly laid cables!

Risk of injury and damage to the device.

- Properly lay connection cables and check them regularly.
- Immediately replace damaged connection cables.
- Ensure that no work is ever performed with a damaged connection cable.
- Do not lay connection lines on travel paths of forklifts or through doors/gates.
- Do not lay connection lines in the area of walkable hallways or paths to avoid the risk of tripping.

4.2.6 Cleaning and Flushing



Danger due to cleaning and flushing!

Explosion hazard and damage to the device.

- Before starting cleaning or any other manual work, the high voltage in the spray area must be shut down and locked to prevent it from being switched back on.
- Lock the compressed air supply and decompress the device.
- Secure the device against being switched back on without authorization.
- Use only electrically conducting and grounded tanks for cleaning fluids.
- Preference should be given to non-ignitable cleaning fluids.
- Ignitable cleaning liquids may only be used if all high-voltage parts are discharged to a discharge energy of less than 0.24 mJ after shutting off the high voltage before these parts can be reached. Most ignitable solvents have an ignition power in the range of 0.24 mJ, corresponding to 60 nC.
- The flash point of the cleaning agents must be at least 15 K over the ambient temperature.

- Note the details provided by the powder lacquer manufacturer.
- To remove dust deposits, only mobile industrial vacuums of type 1 may be used (see BS EN 60335-2-69:2012).
- Take measures for workplace safety (see Chapter "A Safe Work Environment").

4.2.7 Maintenance and Repair

Danger due to improper maintenance and repair!

Danger to life and equipment damage.

- Only a WAGNER service center or a specially trained person may carry out repairs and replace parts.
- Repair or replacement of devices or parts of devices are only allowed to be performed outside the hazard area by qualified personnel.
- Use only WAGNER original spare parts and accessories.
- WAGNER assumes no liability for changes to the product made by the operating company without the knowledge of WAGNER. Any adjustments to the documentation and the market release are the responsibility of the operating company.
- Only repair and replace parts that are listed in the chapters "Accessories" and "Spare Parts" and that are assigned to the device.
- Do not use any defective components.
- Before all work on the device and in the event of work interruptions:
  - Switch off the energy and compressed air supply.
  - Relieve pressure on spray gun and device.
  - Secure the spray gun against actuation.
- Observe the operating and service manual for all work.

4.2.8 Protective and Monitoring Equipment

Danger due to removal of protective and monitoring equipment!

Danger to life and equipment damage.

- Protective and monitoring equipment must not be removed, modified or rendered unusable.
- Regularly check for perfect functioning.
- If defects are detected on protective and monitoring equipment, the system must not be operated until these defects are remedied.

4.2.9 Safety Features

Signs bearing information for the user have been attached to the work openings of the spray booth.

The label plates, which must be attached, are shown below:



Forbidden for persons with a cardiac pacemaker!



Smoking, fire, and open flames are prohibited!



Explosive atmosphere!



Follow the instructions in the operating manual!



Forbidden for unauthorized persons!



High voltage!
In the control cabinet:
(25 mm; 0.98 inch)
Voltage before main switch



Wear electrostatically conductive footwear!

5 DESCRIPTION

5.1 COMPONENTS

The Basic 4000 spray booth is available in the following versions:

Model	Note	Order no.
Basic 4000 suspension booth	Control cabinet, left	3305080
Basic 4000 suspension booth	Control cabinet, right	3306210

5.1.1 Basic 4000 components



Features:

- ideal for medium-sized parts to be coated and small parts
- Spraying area (width x height): 1440 mm x 1730 mm

1	Extraction unit
2	Electric control cabinet
3	Pneumatic control cabinet
4	Deflector grid
5	Filter cartridges
6	Residual powder accumulation area
7	Opening for disposing of residual powder

The Basic 4000 suspension booth meets the regulations for electrostatic powder coating. The air that is suctioned off is filtered and can be reintegrated into the ambient air.

Operating principle:

The Basic 4000 suspension booth is suitable for continuous operation. The air is suctioned off with the over-spray and guided through the deflector grate 4 to the filters 5. The filter elements (cartridges) are cleaned automatically, in alternation, as one filter element is quickly cleaned at a time. The settings of the cleaning cycle depend on the type and quantity

of the powder to be separated. The recovered powder collects on the floor 6 and must be regularly disposed of (in the container which is to be placed under the opening) using an industrial vacuum clean or a scraper.

5.2 EXTENT OF DELIVERY

Stk	Order no.	Designation
1	see Chapter Components [▸▸ 15]	Basic 4000
The standard equipment includes:		
1	3304086	Declaration of Conformity
1	3305765	Operating manual, in German
1	see Chapter Languages [▸▸ 6]	Operating manual in local language

5.3 DATA

5.3.1 Technical Data

Dimensions:	
Filter surface area	40 m^2; 430.6 sft
Number of filter cartridges	2
Booth extraction capacity	4000 m^3/h; 5231 cyd
Weight	approx. 550 kg; 1212.52 lb
Electrical:	
Input voltage	230–400 V
Input frequency	50 Hz
Rated power, drive motor	3.0 kW
Pneumatic:	
Input air pressure	0.6–0.8 MPa; 6–8 bar; 97–116 psi
Air consumption	25 m^3/h; 883 cft
Required compressed air quality	6.5.2 according to ISO 8573-1, 2010
Sound pressure level	78 dB(A) without cleaning pulse

⚠ WARNING

Exhaust air containing oil!

Risk of poisoning if inhaled.

Insufficient paint application quality.



- The compressed air must meet the following quality requirements: (Quality Standard 6.5.2 according to ISO 8573.1, 2010) 6.5.2 = particle density ≤ 5 mg/m^3; pressure dew point ≤ +7 °C; oil content ≤ 0.1 mg/m^3

6 ASSEMBLY AND COMMISSIONING

6.1 TRAINING OF ASSEMBLY/COMMISSIONING PERSONNEL

- The assembly and commissioning personnel must have the technical skills to safely commission the device.
- When assembling, commissioning and carrying out all work, read and follow the operating manuals and safety regulations for the additionally required system components.

A skilled person must check to ensure that the device is in a reliable state after it is assembled and commissioned.

6.2 STORAGE CONDITIONS

Until the point of assembly, the device must be stored in a dry location, free from vibrations and with a minimum of dust. The device must be stored in closed rooms.

The air temperature at the storage location must be between 0 and 45 °C (32 and 113 °F).

The relative air humidity at the storage location must be between 10 and 95% (without condensation).

6.3 INSTALLATION CONDITIONS

The basic booth or basic spray wall must not be installed in places with a high temperature. Powders with a gelling tendency should be processed at low temperatures. When using low-melting powder varieties, an ambient temperature below 35 °C (95 °F) may be necessary.

Please note the powder manufacturer's specifications in this regard.

Temperature range	5 – 40 °C; 41 – 104 °F
Relative humidity	< 75%
Signal ground (earthing strip or rod)	According to VDE 0141 low-impedance with NYAF > 16 mm^2

6.4 TRANSPORTATION

⚠ WARNING

Parts have high weights and centers of gravity!

Risk of injury and damage to the device.

- Only use appropriate lifting tackle (crane, fork lift) for assembly.
- Secure the parts against tipping during transport.
- Cordon off assembly area to keep out unauthorized persons.



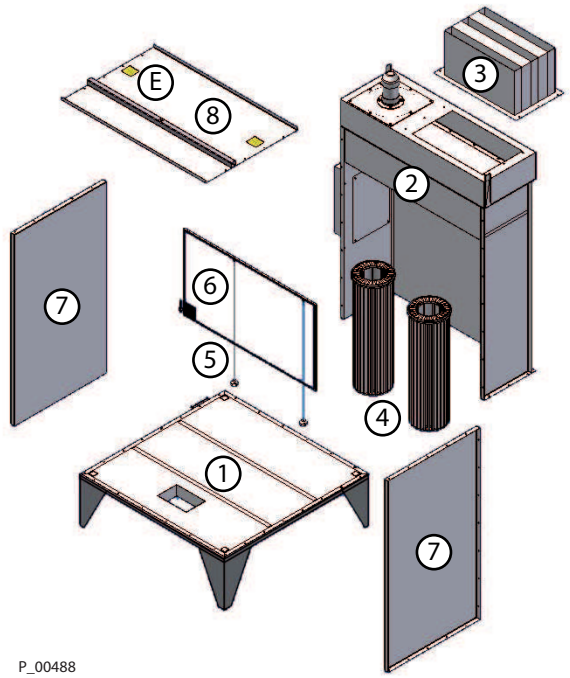
The powder coating booth is delivered disassembled to the site of installation. Final assembly is performed on site.

Transportation and warehouse operations may only be performed by qualified personnel, especially in the use of industrial trucks, ladders and cranes.

The selected means of transport must be suitable and permissible for the respective component weights.

In order to bring the parts to the installation site, an opening width of at least 2500 mm; 8.20 ft must exist. Before and after the opening, there must be enough space for maneuvering long parts up to 3500 mm, 11.48 ft long.

6.5 DELIVERY CONDITION OF THE SUSPENSION BOOTH

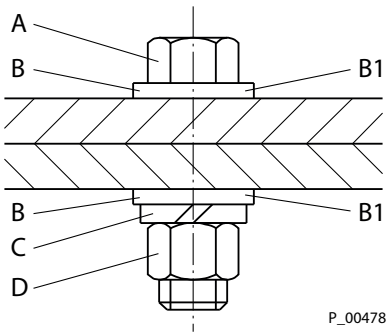


Components of the Basic 4000 suspension booth

1	Underframe
2	Extraction unit
3	Silencer
4	Filter cartridges
5	Threaded rod with star grip
6	Deflector grid
7	Side walls
8	Booth ceiling

	E	Grounding sticker marked place for mounting a contact washer Observe the notes in the Chapter Assembly Sequence!

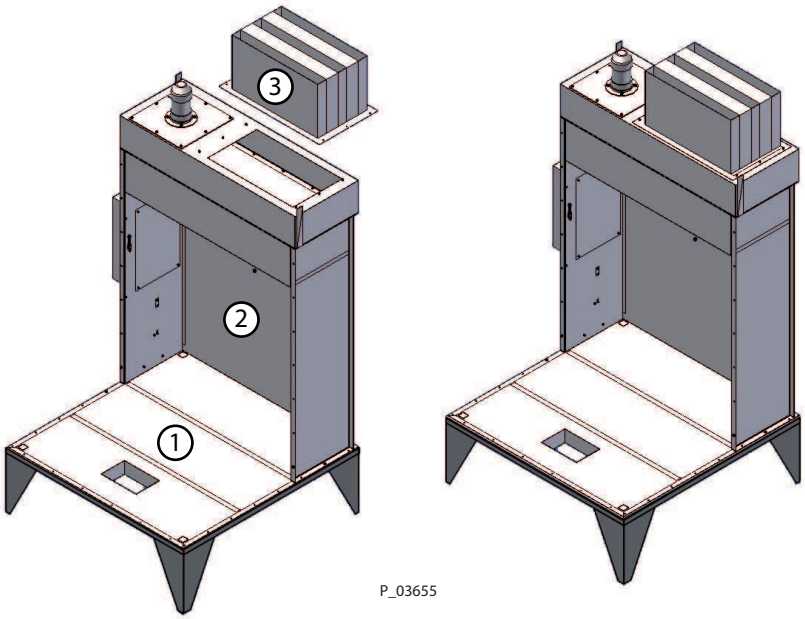
6.6 ASSEMBLY SEQUENCE



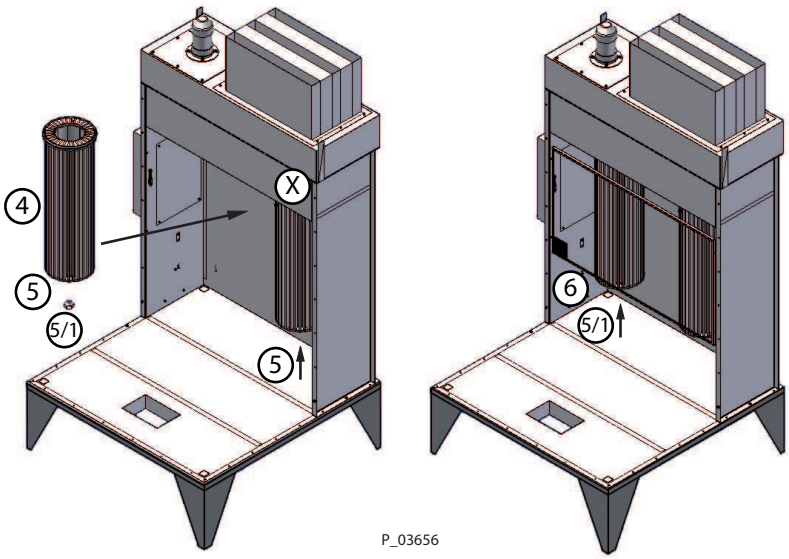
Note:

For all component connections, always install M8 hexagon screws with plain washers B under the screw head A and plain washers B plus spring washers C under the hexagon nut D!

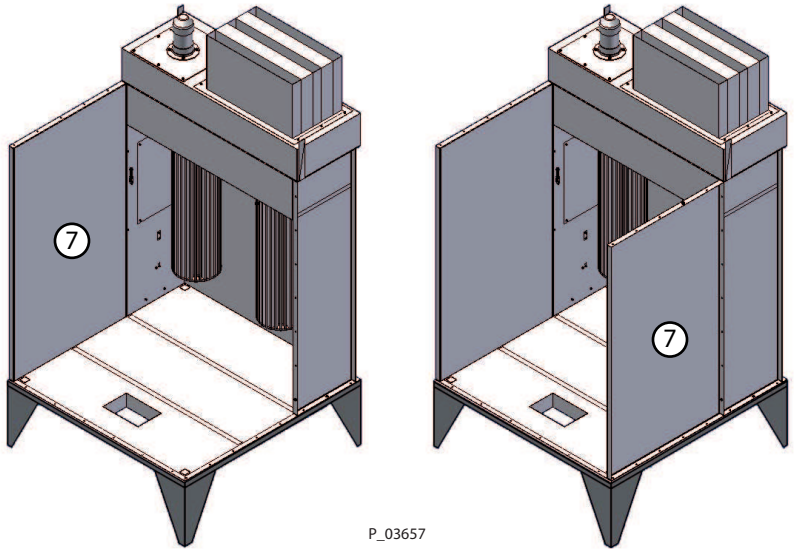
To ensure safe grounding, replace plain washer B with a contact washer B1 at least 2 points per component connection!



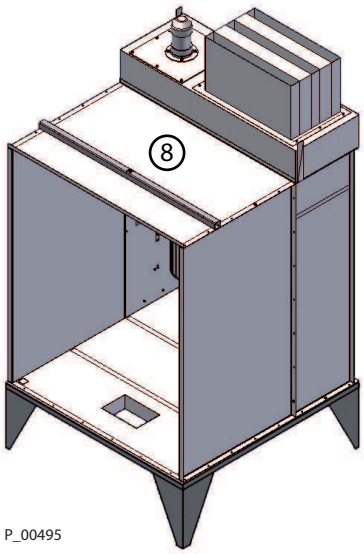
1. Mount extraction unit 2 on underframe 1.
2. Mount silencer 3 on extraction unit 2.



3. Guide the threaded rod 5 into the filter cartridge 4 and position both below the cartridge opening X.
4. Screw threaded rod 5 into the cleaning nozzle and tighten hand-tight.
5. While holding up the filter cartridge 4, screw the sealing washer and washer 5/1 onto the threaded rod 5 using the star grip 5/1 and tighten firmly.
6. Hook on deflector grid 6.



7. Mount side walls 7.



8. Mount booth ceiling 8.
9. Seal all joints with the supplied sealant.

6.7 FIRST COMMISSIONING



1. Connect electrical supply 1 to the mains.
2. Connect the pneumatic supply from the air generator to the pneumatic control cabinet, see Chapter Operating and Display Elements [▸▸ 23].
3. Connect the pneumatic hose for the manual system to the pneumatic control cabinet, see Chapter Operating and Display Elements [▸▸ 23].
4. Connect grounding cable of the manual system to grounding bus 2 and the grounding screw of the control unit.
5. Connect signal ground to grounding bus 2.
6. Connect electric cable 3 to the manual system.
7. Check differential pressure monitor in pneumatic control cabinet and adjust if necessary, see Chapter Operating and Display Elements [▸▸ 23].
8. Check cleaning 4 and adjust if necessary. Normally, the factory setting must not be changed.

6.8 GROUNDING

For safety reasons, the spray system must be grounded. WAGNER recommends using copper wiring of at least 16 mm^2 with a sufficient mechanical strength.

It is important for system safety and to achieve an optimum coating, that all system components such as work pieces, conveyors, paint supply, control unit and booth or spraying wall are perfectly grounded.

A poorly grounded work piece causes:

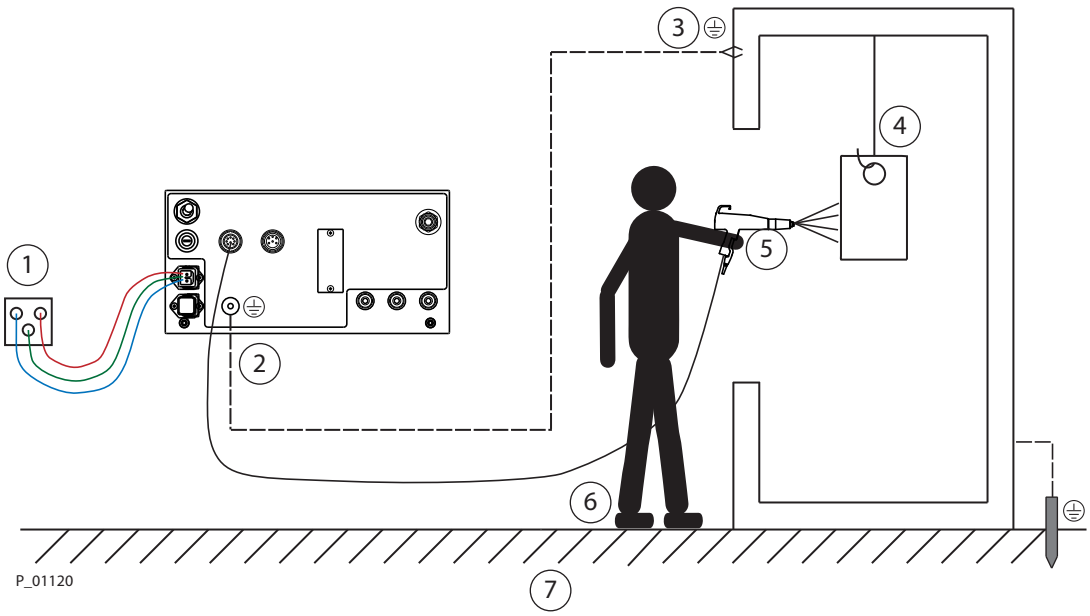
- dangerous electric charging of the work piece
- very bad wrap-around
- uneven coating
- back spraying to the spray gun, i.e., contamination

Prerequisites for perfect grounding and coating of a work piece are:

- Clean suspension of the work piece to be coated.
- Regular cleaning of powder residue from hanger
- Grounding of the spray booth, conveyor system and suspension equipment on site, in accordance with the operating manual or the manufacturer's information
- That a grounding resistance of the work piece of 1 MΩ is not exceeded (resistance to ground measured at 500 V or 1000 V).

Sparks between conveyor, conveyor hooks (hangers) and work piece can occur if electric contact points between conveyor, conveyor hooks (hangers) and work piece are not sufficiently cleaned and therefore the work pieces are not sufficiently grounded! These sparks can cause heavy radio frequency interference (EMC).

6.8.1 Grounding the powder coating system



1	Only use mains cables with grounding strand!
2	Connect grounding cable with booth or spray wall and signal ground!
3	Connect grounding cable to an uncoated metal part of the booth or spray wall!
4	Remove all paint from hooks and other hanger parts!
5	Do not wear insulating gloves!
6	Wear electrostatically conductive footwear!
7	The floor must be electrostatically conductive!

6.9 FIRE DETECTION AND FIRE EXTINGUISHING MEASURES

Detectors for fire detection must be installed on site, in the booth or spray wall at the points intended for this purpose, which initiate appropriate extinguishing measures in the event of fire detection. Depending on the fire/explosion protection concept, the technical solution may also vary (fire dampers, extinguishing system, pressure-resistant device design).

The delivery and assembly of the fire extinguishing system is the responsibility of the operating company. The fire extinguishing system must be fully functional at the time of first commissioning.

6.10 SAFETY CHECKS

A skilled person must check to ensure that the device is in a reliable state after it is assembled and commissioned. This includes:

- Carry out safety checks in accordance with Chapter Safety Checks [▸▸ 29].

6.10.1 Testing Before First Commissioning

The function of the on-site safety shutdown for the air interlock should be tested.

Information on testing for German-speaking users is contained in the VDMA standard sheet "Procedural guidelines for testing spray systems".
National information is available as needed.

Before first commissioning, the system's settings must be recorded in a report as evidence of correct installation.

6.11 START UP

6.11.1 Operating and Display Elements

Electric control cabinet:

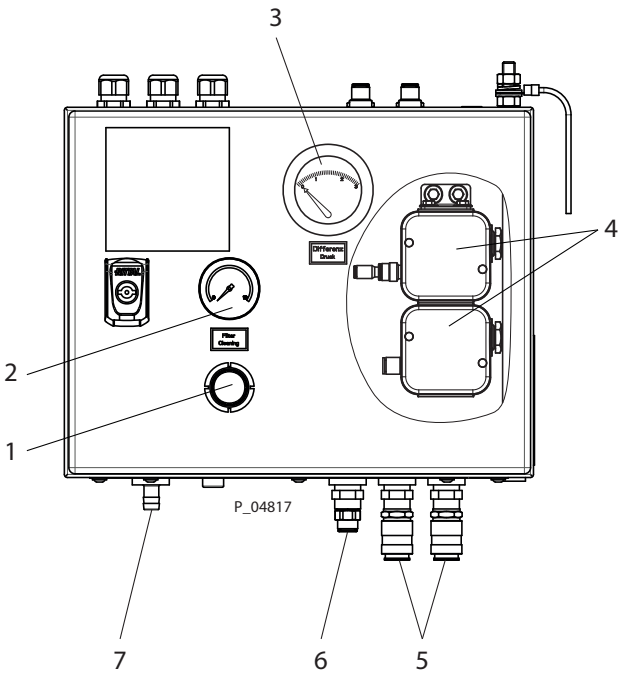


P_04822

1	Main switch: switching the system on and off
2	Ventilator ON/OFF
3	Display: Lights up red when the pressure difference of the filter cleaning operation has become excessive or a malfunction at the ventilator motor occurs *(see Chapter Troubleshooting and Rectification [▸▸ 34])
4	Filter cleaning ON/OFF

* When the set value of 1.7 kPa (kilo Pascal) is exceeded, the display lights up red (pos. 3 on the electric control cabinet).

Pneumatic control cabinet:



Pos	Designation
1	Pressure regulator to set the compressed air for the pressure tank of the filter cleaning operation
2	Pressure indication in bar for the compressed air tank of the filter cleaning operation (pressure setting 4 bar)
3	Differential pressure indicator of the filter cleaning operation in kPa between the pressure upstream of the filter and downstream of the filter*
4	Differential pressure monitor Normally, the factory settings 1.7 kPa; 0.017 bar; 0.246 psi must not be changed. The adjustment knob is not accessible after taking of the cover.
5	Air outlets, switched via the system
6	Connection to the pressure tank of the filter cleaning
7	Connection to the compressed air generator

* Factory preset differential pressure of 17 mbar (1.7 kPa; 0.017 bar; 0.246 psi)

7 OPERATION

7.1 TRAINING THE OPERATING PERSONNEL

- The operating personnel must be qualified to operate the entire system.
- The operating staff must be familiar with the potential risks associated with improper behavior as well as the necessary protective devices and measures.
- Before work commences, the operating personnel must receive appropriate system training.

7.2 TASKS

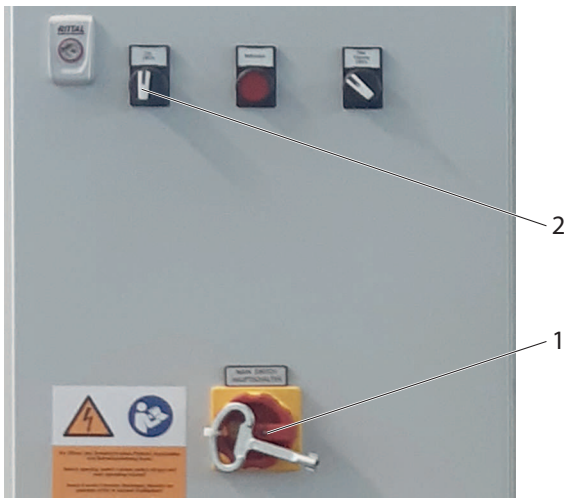
1. Ensure that:
   - the regular safety checks are carried out in accordance with Chapter Safety Checks [▸▸ 29];
   - commissioning is carried out in accordance with Chapter Assembly and Commissioning [▸▸ 17].

7.3 OPERATING PERSONNEL WORKSTATIONS

Remaining inside the coating system is only permitted when carrying out specific activities (e.g., maintenance, servicing, repairs).

Workstation	Manual coating
Location	External manual coating station
Activity	Coating work pieces
Residual risk	1. Slipping due to dirty workstation 2. Inhaling powder lacquer 3. Noise pollution
Protective measures	1. Clean coating system regularly 2. Wear respirator 3. Wear hearing protection

7.4 SWITCHING ON THE SYSTEM



P_04823

1. Switch on the compressed air.

2. Switch on the main switch (1).
3. Switch on the ventilator (2).

The spray gun is released for coating in the booth or spray wall, if all the necessary signals provided by the customer are present.

NOTICE

Insufficient air volume!

If the cleaning operation is not activated, the nominal exhaust output is not reached.

7.5 SWITCHING OFF THE SYSTEM

During every interruption of operation, all powder feeding parts of the entire coating system should be cleaned of residual powder.

1. Switch off the powder feed and the high voltage for the spray gun and secure them against being switched on unintentionally.
2. Clean the inside of the booth.
3. Switch off main switch.

7.6 PERFORMING A PAINT CHANGE

WARNING

Dust formation!



Risk of poisoning if inhaled.

Danger due to escaping dust, contamination of the device and device components.

- The booth's extraction system and the filter cleaning system must remain activated during all paint changes.

In the case of a paint change, powder residues must be thoroughly removed from all the powder-conveying parts throughout the complete coating system.

1. Keep the extraction system of the booth or the spray wall with the filter cleaning system activated.
2. Switch off the powder feed and the high voltage for the spray gun and secure them against being switched on unintentionally.
3. Clean the powder feeding parts and the interior of the booth.
4. Scrape the paint powder from the booth walls with a rubber scraper and dispose of it with a suitable industrial vacuum cleaner.
5. Switch off the booth extraction.
6. Change the filter cartridge for recovery mode (1 cartridge set per powder shade). Keep the cartridges in their packaging.
7. Switch the booth extraction system and filter cleaning system back on.

⇨ Coating can be continued with the new paint powder.

8 CLEANING AND MAINTENANCE

8.1 CLEANING

8.1.1 Cleaning Personnel

Cleaning work should be undertaken regularly and carefully by qualified and trained personnel. They should be informed of specific hazards during their training.

The following hazards may arise during cleaning work:

- health hazard from inhaling powder lacquer,
- use of unsuitable cleaning tools and aids.

8.1.2 Cleaning Instructions

⚠ DANGER

Explosive mixtures with air!



Danger to life and equipment damage.

- Cleaning agents can form explosive mixtures with air!
- The technical ventilation must be switched on during the cleaning procedure.

8.1.3 Cleaning Procedures

The cleaning intervals should be adapted by the operator depending on the level of use and if necessary the level of soiling.

If in doubt, we recommend contacting WAGNER's specialist personnel.

8.1.4 Setting the Cleaning Intervals

There is a LOGO controller in the Basic booth's control cabinet, for controlling the cleaning intervals.

The basic functions are described below.

A detailed description of this controller is included in a separate settings manual (order no. 3305994).

Normally, no settings have to be made on the LOGO-control unit and if required, must only be made by qualified technicians.

8.1.4.1 Basic Functions of the Controller



P_04824

Pos	Designation	Function
1	**ESC**	To change to another menu or to discard the input
2	**OK**	To select the parameters or to close the input
3	**Display**	Menu display
4	**Arrow button**	To increase the value
5	**Arrow button**	To switch to another parameter
6	**Arrow button**	To switch to another parameter
7	**Arrow button**	To reduce the value

8.2 MAINTENANCE

8.2.1 Maintenance Personnel

Maintenance work should be undertaken regularly and carefully by qualified and trained personnel. They should be informed of specific hazards during their training.

The following hazards may arise during maintenance work:

- health hazard from inhaling powder lacquer,
- use of unsuitable tools and aids.

A skilled person must ensure that the device is checked for being in a reliable state after maintenance work is completed.

8.2.2 Maintenance Instructions

⚠ DANGER

Incorrect maintenance/repair!

Danger to life and equipment damage.

- Only a WAGNER service center or a specially trained person may carry out repairs and replace parts.
- Use only WAGNER original spare parts and accessories.
- Only repair and replace parts that are listed in the spare parts chapter and that are assigned to the device.
- Before all work on the device and in the event of work interruptions:
  - Switch off the energy and compressed air supply.
  - Relieve spray gun and device pressure.
  - Secure the spray gun against actuation.
- Observe the operating and service manuals of the individual components for all work.



Prior to maintenance

- Flush and clean the system according to Chapter Cleaning [▸▸ 27].

After maintenance

- Carry out safety checks in accordance with Chapter Safety Checks [▸▸ 29].

8.2.3 Safety Checks

8.2.3.1 Grounding Check

Every day

- Before starting work, carry out a visual check to ensure that the system is grounded.

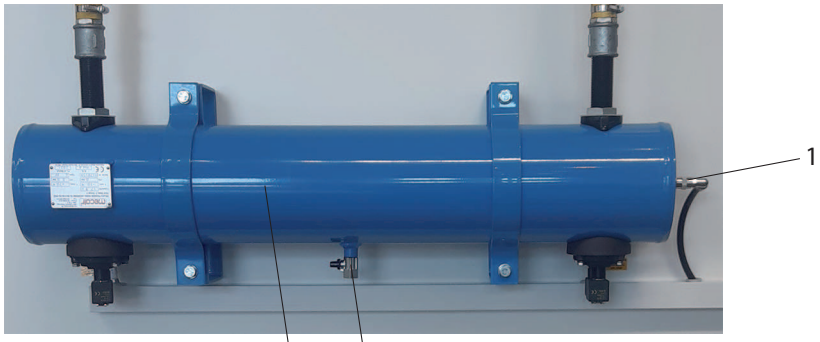
8.2.4 Maintenance Procedures

The maintenance intervals should be adapted by the operator depending on the level of use and if necessary the level of soiling.

If in doubt, we recommend contacting WAGNER's specialist personnel.

Maintenance work	Time stamp	
	Per shift	Weekly
Blow out gun and check for sintering	x	
Check gun settings	x	
Check gun discharge pressure	x	
Blow out powder hoses	x	
Check grounding		x
Check compressed air quality		x
Check gun voltage		x
Check powder hoses for bends and sintering		x

8.2.5 Compressed Air Tank Maintenance



P_04813

Rear side of the spray wall

1	Compressed air supply to the pneumatic control cabinet
2	Blow-off valve Open to empty the compressed air tank
3	Compressed air tank for cleaning

The compressed air tank is normally maintenance-free.

To avoid malfunctions, regularly check the following points:

- Leaks in the supply lines or connection cables
- Leaks on the valve seat or saddle flange
- Fixed seat of the tank fixing
- If necessary, emptying of the condensate (blow-off valve 2)

9 INSPECTIONS IN ACCORDANCE WITH BS EN 50177: 2009

If the system is used for electrostatic coating with ignitable coating powders, the test must be performed in accordance with BS EN 50177:2009+A1:2012 according to the following overview table Overview Table [▸▸ 32].

9.1 ABBREVIATIONS

ER	Employer	FT	Function test
SP	Skilled person	ME	Measurement
FPE	Fire protection engineer	SI	Standard inspection
QEW	Electrician	VI	Visual inspection
MFR	Manufacturer	CM	Continuous monitoring
TP	Trained person	TI	Technical inspection

9.2 OVERVIEW TABLE

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
1	Checking the effectiveness of technical ventilation	Checking the effectiveness of technical ventilation	TP/SP	ME Measurements of air flow speed/ air quantities Check the differential pressure indicator.	Continuously
2	Link between technical ventilation equipment and high voltage, compressed air and coating material supply	The technical ventilation should be interlocked such that the coating material supply and high voltage cannot be switched on, while the technical ventilation is not working effectively.	SP	FT Test whether the system is safely stopped and the coating material supply, supply air, and high voltage are switched off when the ventilation is shut down.	Annually
3	Parts carrying high voltage outside the spray area	Parts carrying high voltage outside the spray area must be routed such that discharges which put people at risk do not occur.	SP	FT Inspect and test (e.g., by measurement) whether all parts carrying high voltage do not result in discharge which puts people at risk.	Weekly
4	Effectiveness of grounding	All conductive components of the system, such as floors, walls, ceilings, barriers, transport equipment, work pieces, powder tanks, moving devices or structural parts, etc. in the spray area, with the exception of parts under high voltage during operation, must be connected to the grounding system. Parts of the booth must be grounded in accordance with BS EN 16985.	SP	VI/ME/CM Visual check of ground connections, perform function test on grounding switch, measurement of grounding resistors.	Weekly
5	Measures to take if conductive components are insufficiently grounded	If sufficient grounding of conductive parts cannot be ensured, their discharge energy must not exceed the permissible value.	SP	ME/CM Measurement of discharge energy.	Weekly

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
6	Ground leaking resistance from the work piece attachment point	The ground leaking resistance of the attachment point of every work piece may be 1 megohm at most (measuring voltage must be 500 V or 1000 V). The design of the work piece holder must ensure that the work pieces remain grounded during coating.	SP	ME/CM Measure the ground leaking resistance (ground potential of the workpiece mount) maximum 1 MOhm @ 500 V/1000 V.	Weekly
7	Measures to take if the work pieces are insufficiently grounded	If sufficient work piece grounding in accordance with section 6 cannot be ensured, appropriate equipment, e.g., ionizers, must be used to discharge electric charges on the work piece. Such equipment must not exceed the permitted discharge energy of the spraying systems with which it is used. In terms of permitted discharge energy, this equipment must be put through the same inspections as the powder spraying systems used with it. The discharge equipment must be interlocked with the spraying system such that the high voltage is switched off and that coating cannot take place if the discharge equipment malfunctions.	SP	ME/FT/CI Measurement of discharge energy, check the monitoring equipment's test function by triggering it.	Weekly
8	Effectiveness of the manually or automatically actuated fire extinguishing systems (room protection system)	Effectiveness of the manually or automatically actuated fire extinguishing systems (room protection system).	MFR/FPE	FT Trigger fire extinguishing system, observe manufacturer's requirements.	6 months

10 TROUBLESHOOTING AND RECTIFICATION

Malfunction	Cause	Rectification
Extraction capacity is too weak (safety stop triggers)	Fuses defective	Replace the fuses
	The filter cleaning system is not activated	Start and shorten the cleaning intervals if required (interval program in the control cabinet)
	The solenoid valves in the filtering system are defective	Replace the solenoid valves
	The cleaning filters are clogged	Clean or replace the filter cartridges
Dust is exhausted from the blower	Filter cartridges are incorrectly installed	Mount the filter cartridges correctly
	The seal of the filter cartridge is defective	Replace the foam rubber gasket
	Filter cartridges are damaged	Replace filter cartridges
Excessive noise and/or vibrations from the housing	The ventilator bearings are defective	Replace electric motor
	Dust deposits on the ventilator blades	Clean the ventilator blades
No powder feed	The injector is clogged or worn	Clean the injector and, if necessary, replace worn parts
	The powder hose is dirty or bent	Clean the powder hose and check the hose for bends
	The spray guns are clogged	Gun cleaning
	Insufficient feed and dosing air	Check the air supply system

11 DISASSEMBLY AND DISPOSAL

11.1 DISASSEMBLY

⚠ WARNING

Incorrect disassembly!

Risk of injury and damage to the device.

- Before starting disassembly:
  - Switch off the energy and compressed air supply.
  - Ensure the grounding of all system components.
  - Secure system against being switched back on without authorization.
- Observe the operating manuals when carrying out all work.



We recommend having the WAGNER system disassembled by WAGNER or another specialist.

Before starting disassembly, all supply media (electric current, compressed air) must be disconnected at the connection points. All powder lacquer lines must be completely emptied and then rinsed. Lacquer residues must be disposed of in line with statutory requirements.

Before starting disassembly, check and ensure that the supply lines have actually been interrupted and have been depressurized and/or de-energized if necessary.

The empty system should be thoroughly cleaned. In particular, fire loads, such as unused lacquers in exhaust air pipes, etc. for example, should be removed to keep the risk of fire during disassembly as low as possible.

11.2 DISPOSAL

Separate all materials encountered during disassembly as clearly as possible in line with statutory requirements. Carry out appropriate measures to ensure that no dangerous substances can enter the system as it is being disassembled. All waste produced must be separated and disposed of in line with the applicable regulations.

Used materials are:

- Steel
- Cables ...

12 ACCESSORIES

Order no.	Description	Illustration
3920048	Blow gun	 P_02688
3920043	Screw-in nipple (must be ordered separately)	
3920053	Nozzle attachment wit coupling	
3923136	Hose reel system	 P_02710
3921960	Extension for the blow gun, 460 mm	
3920051	Extension for the blow gun, 960 mm	
3311137	Cleaning paper	

13 SPARE PARTS

13.1 HOW TO ORDER SPARE PARTS

Always supply the following information to ensure delivery of the right spare part:

Order number, designation and quantity

The quantity need not be the same as the number given in the quantity column „Stk“ on the list. This number merely indicates how many of the respective parts are used in each component.

The following information is also required to ensure smooth processing of your order:

- Billing address
- Delivery address
- Name of the person to be contacted in the event of any queries
- Type of delivery (normal mail, express delivery, air freight, courier etc.)

Identification in spare parts lists

Explanation of column „K“ (marking) in the following spare parts lists:

♦ Wearing parts. Wearing parts are not included in the warranty.

⋆ Included in service set

● Not part of the standard equipment but available as a special accessory

Explanation of order no. column:

-- Item not available as spare part.

/ Position does not exist.

13.2 NOTES ON THE USE OF SPARE PARTS

⚠ DANGER

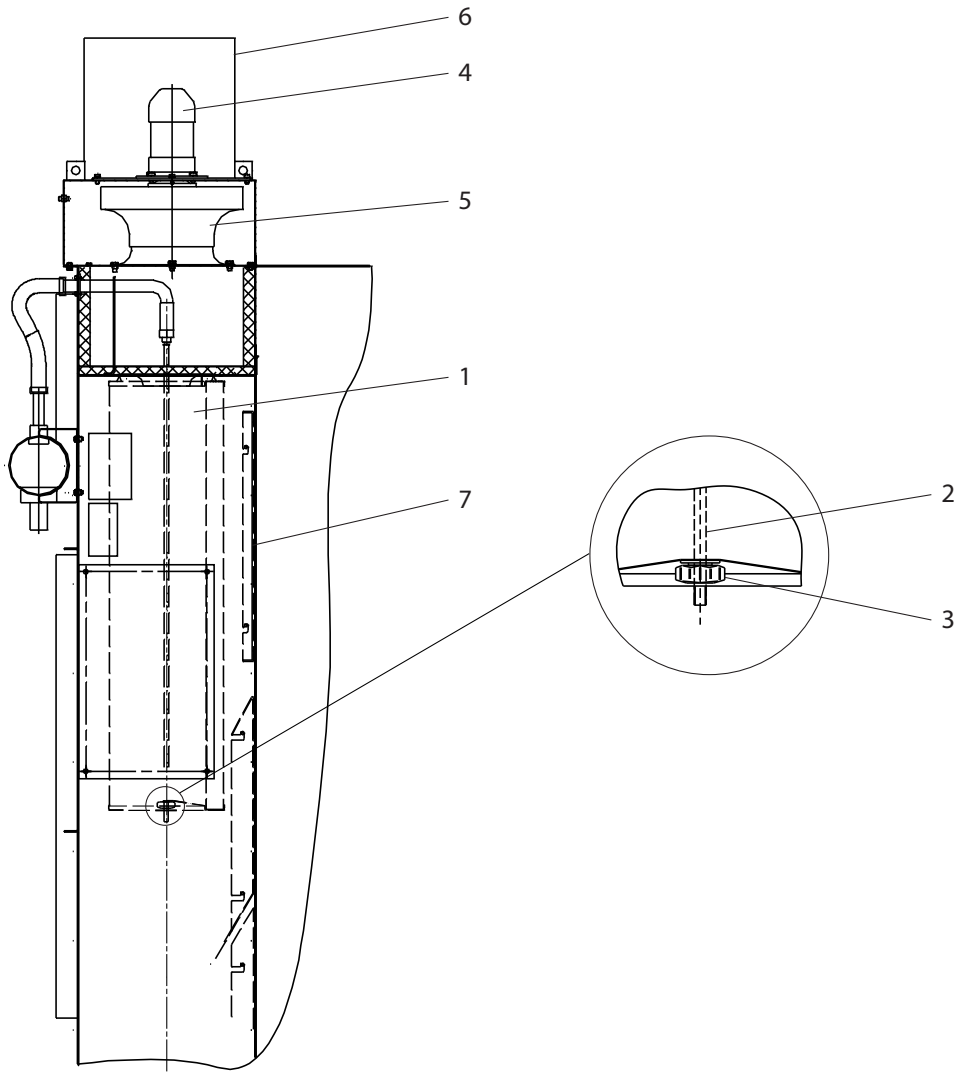
Incorrect maintenance/repair!

Danger to life and equipment damage.

- Only a WAGNER service center or a specially trained person may carry out repairs and replace parts.
- Use only WAGNER original spare parts and accessories.
- Only repair and replace parts that are listed in the spare parts chapter and that are assigned to the device.
- Before all work on the device and in the event of work interruptions:
  - Switch off the energy and compressed air supply.
  - Relieve spray gun and device pressure.
  - Secure the spray gun against actuation.
- Observe the operating and service manuals of the individual components for all work.



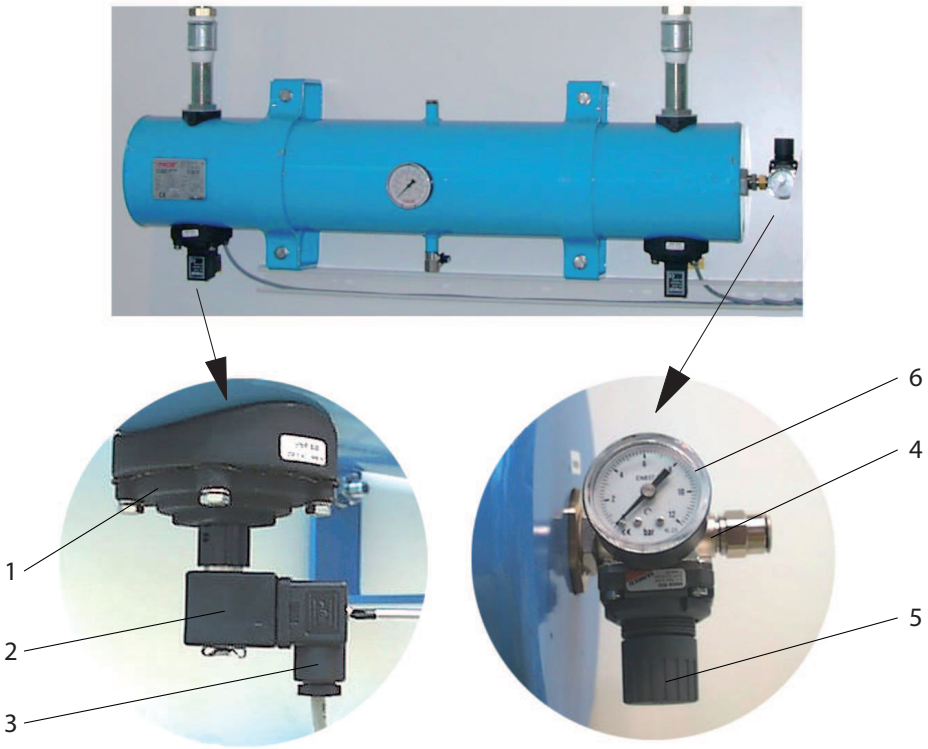
13.3 SPARE PARTS LIST FOR SUSPENSION BOOTH BASIC 4000



Pos	K	Stk	Order no.	Designation
1	● ♦	2	2427053	Filter cartridge with sealing washer
2		2	3143547	Threaded rod, long
3		2	2401202	Star grip
4		1	3302585	Motor
5		1	3054920	Clockwise rotating impeller
6		1	2415933	Vent silencer
7		1	2415784	Deflector grid
	♦	4	--	Rollers

♦ = wearing parts

13.4 SPARE PARTS LIST FOR PRESSURE TANK (UNTIL 06/2021)



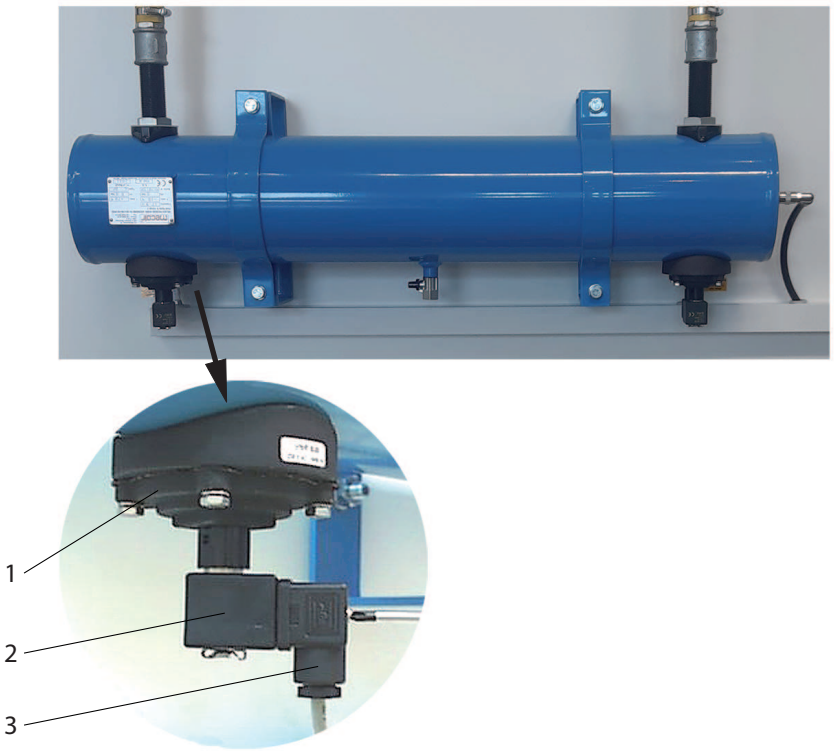
P_00498

Pos	K	Stk	Order no.	Designation
1	♦	2	3306273	Diaphragm
2		2	3306439	Magnet coil 230 VAC (until 09/2007)*
2		2	3306274	Magnet coil 24 VDC (starting 09/2007)*
2		2	2424184	Magnet coil 24 VDC, not ATEX (starting 02/2021)*
3		2	9955654	Valve connector, MSSD-C 230 VAC (until 09/2007)*
3		2	3304504	Valve connector, type A 18 mm; 0.71 inch 24 VDC (starting 09/2007)*
4		1	3305056	Pneumatic control unit, complete
5		1	3060190	Pressure regulator 1/4" 0.5-10 bar
6		1	114324	Pressure gauge

♦ = wearing parts

* Before ordering the spare parts, please check the voltage specified on the installed parts.

13.5 SPARE PARTS LIST FOR PRESSURE TANK (STARTING 07/2021)



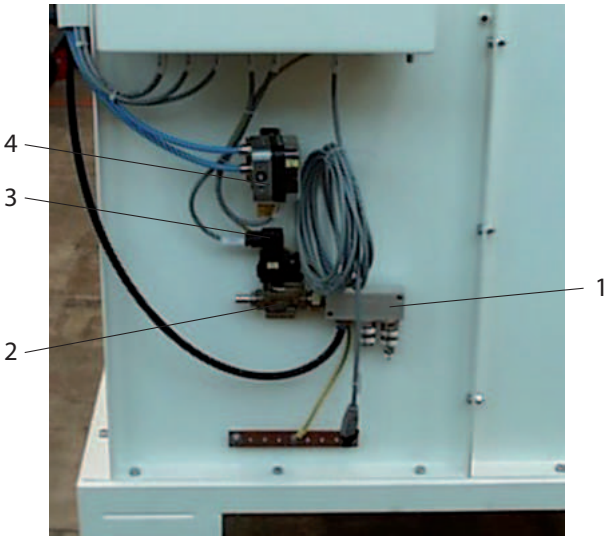
P_04815

Pos	K	Stk	Order no.	Designation
1	♦	2	3306273	Diaphragm
2		2	2424184	Magnet coil 24 VDC, non-ATEX*
3		2	3304504	Valve connector, type A 18 mm; 0.71 inch 24 VDC*

♦ = wearing parts

* Before ordering the spare parts, please check the voltage specified on the installed parts.

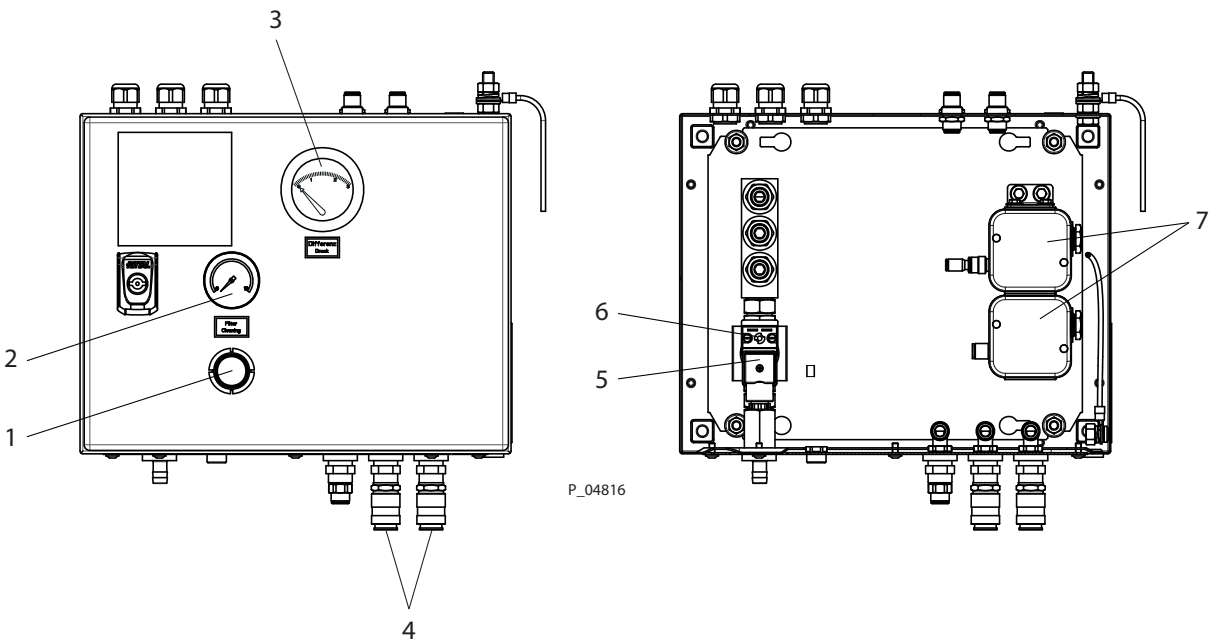
13.6 SPARE PARTS LIST FOR AIR DIFFUSER (UNTIL 06/2021)



P_04856

Pos	K	Stk	Order no.	Designation
		1	3305064	Air diffuser, complete, 1/2" 4-fold
1		1	3068948	Air diffuser, 6704 4x1/2"
2		1	3145435	Solenoid valve, 2/2 G1/2" with coil 24 VDC
3		1	9955654	Plug
4		1	3025456	Differential pressure monitor

13.7 SPARE PARTS LIST FOR PNEUMATIC CONTROL CABINET (STARTING 07/2021)

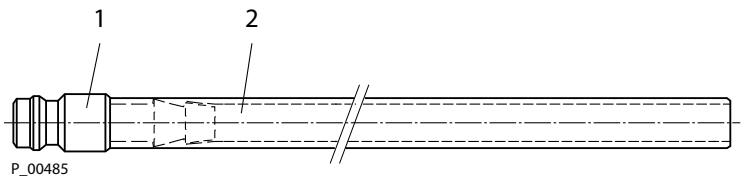


P_04816

Pos	K	Stk	Order no.	Designation
1		1	3060190	Pressure regulator 0 – 10 bar; 0 – 145 psi
2		1	3051234	Pressure gauge 0 – 10 bar; 0 – 145 psi
3		1	3058798	Differential pressure gauge
4		2	3053234	Coupling socket 5081 3/8" NW7
5		1	9955654	Valve connector
6		1	3145435	Solenoid valve
7		2	3025456	Differential pressure monitor
		1	2308621	Assembly set*

* Assembly set for connecting the differential pressure monitor
The assembly set must be ordered separately when replacing the differential pressure monitor.

13.8 MANUAL SYSTEM CONNECTION SET



P_00485

Pos	K	Stk	Order no.	Designation
1			9992200	Plug-in fitting
2			3050061	Hose, 8/6
			3051199	Cable binders (not shown, are included)

14 DECLARATION OF CONFORMITY

14.1 UK DECLARATION OF CONFORMITY

Herewith we declare that the supplied version of
Basic 4000 / ID-Einhängekabine / ID-Durchlaufkabine
complies with the following provisions:

- SI 2008 no. 1597
- SI 2016 no. 1091

Applied standards, in particular:

- BS EN ISO 12100:2010
- BS EN 16985:2018
- BS EN 60204-1:2018
- BS EN ISO 13849-1:2015
- BS EN IEC 61000-6-2:2019
- BS EN IEC 61000-6-4:2019

Applied national technical standards and specifications, in particular:

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Identification:

UK CA

UK certificate of conformity

The UK certificate of conformity is enclosed with this product. If needed, further copies can be ordered through your WAGNER dealer by specifying the product name and serial number.

Order number:

3304086

Order number 2440890
Edition 07/2022

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Subject to changes without notice