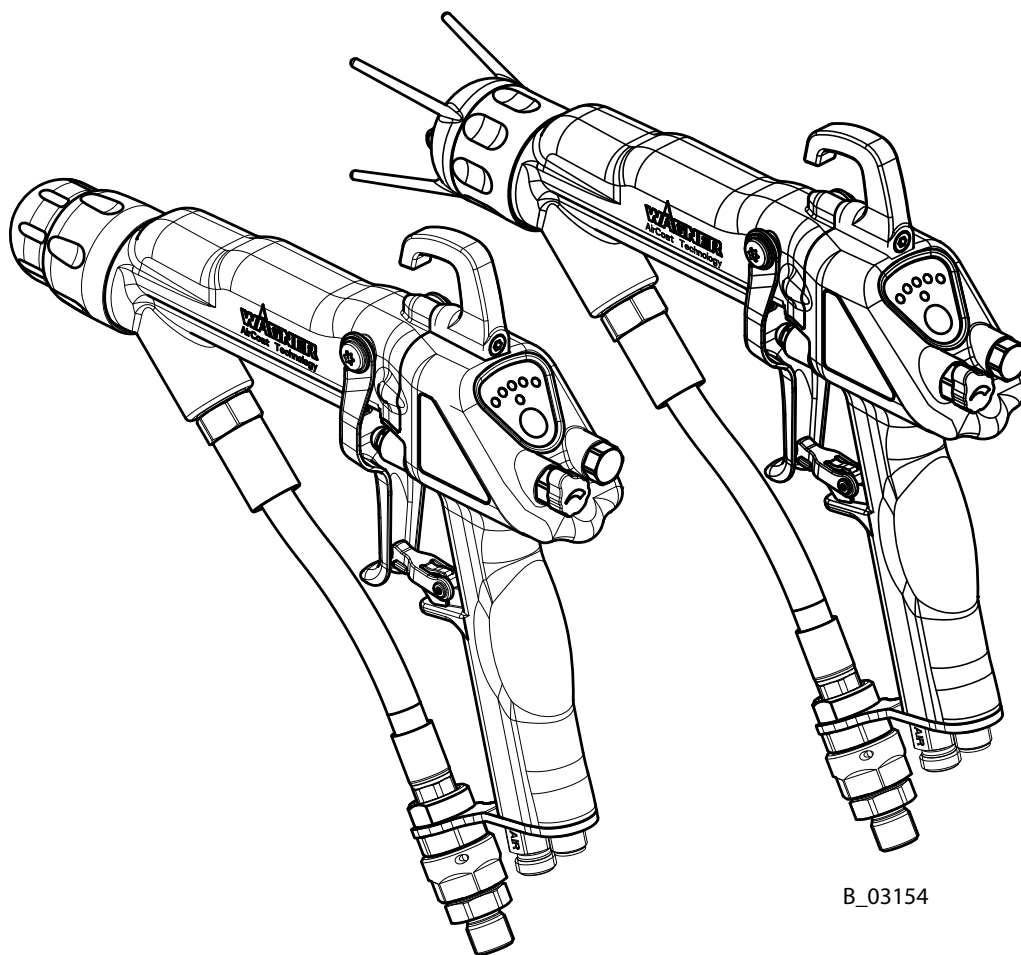




B_03154

Electrostatic manual spray gun (AirCoat)

GM 5000EAC

Original Operating Manual

UK
CA 0518  II 2 G 0.24 mJ

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: 01/2025

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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.
	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

This GM 5000EAC operating manual is available in the following languages:

Original operating manual

Language	Order no.
English	2432030

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
AC	AirCoat
EAC	Electrostatic AirCoat
GM	Manual gun
Low R	Low-resistance
SW	Wrench size

Materials

SSt	Stainless steel
-----	-----------------

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 flushing agent.

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

Electrostatic manual spray gun for manual coating of grounded work pieces.

2.2 TYPE OF USE

The GM 5000EAC electrostatic manual spray gun is suitable for spraying liquid products, particularly coating products, using the AirCoat method.

Coating products may be processed which contain components of substances of explosion group IIA and IIB (maximum ignition energy 0.24 mJ).

WAGNER explicitly prohibits any other use!

The device may only be operated under the following conditions:

- ▶ Use the device only to work with the materials recommended by WAGNER.
- ▶ 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 GM 5000EAC electrostatic manual spray gun is suitable for coating electrically conductive objects with liquid coating products and can be used in potentially explosive areas.

(See Explosion Protection Identification in chapter Explosion Protection Identification [►► 11].)



2.4 PROCESSIBLE WORKING MATERIALS

- ▶ Lacquers whose ingredients contain substances of explosion class IIA and IIB (maximum ignition energy 0.24 mJ) can be processed with the GM 5000EAC spray gun.
- ▶ The basic spray gun version is suitable for processing sprayed substances with an electrical resistance of $> 150 \text{ k}\Omega$ (according to the WAGNER scale).
Equipped with a special product hose for low-resistance sprayed substances (available as an accessory), you can also successfully process sprayed substances with an electrical resistance $> 50 \text{ k}\Omega$ (according to the WAGNER scale).
- ▶ The application effectiveness is always dependant on the composition of the product being used, e.g., pigments or resin.

Conversion of paint resistance

There are paint resistance measuring devices available on the market that do not directly measure the specific paint resistance.

Multiplying the result of the measurement with the device-specific cell constant (K), we obtain the specific resistance value of the product.

Example:

With WAGNER's paint resistance measuring device, the cell constant is K 123.

Measured value according to the WAGNER scale $R = 500 \text{ k}\Omega$

Specific resistance (RS) $RS = R \times K = 500 \text{ k}\Omega \times 123 = 61.5 \text{ M}\Omega \text{ cm}$

Note:

When using sprayed substances with too low of an electrical resistance, the application of electrostatics does not show any effect, i.e. there is no "paint wrap around" on the object to be sprayed.

The suitability of the spray product, with regard to the charging ability, can be read from the actual values for high voltage (kV) and for the spray current (μ A) shown in the illuminated displays either on the VM 5000 or EPG 5000 control unit or on the spray gun.

High kV value, low μ A value	= ok
Low kV value, high μ A value	= excessive conductivity of the paint
	▶ no wrap-around

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 dry coating products, e.g., powder are processed.
- ▶ No food, medicine or cosmetics are processed. It is important to note that the device's materials are not food-safe.

3 IDENTIFICATION

3.1 EXPLOSION PROTECTION IDENTIFICATION

The device is designed as defined by statutory requirement SI 2016/1107. The device is suitable for use in potentially explosive areas.

Device type	GM 5000EAC electrostatic manual spray gun
Manufacturer	Wagner International AG 9450 Altstätten Switzerland



UKCA
0518  II 2 G 0.24 mJ
CSAE 21 UKEX 5231 X
CSAE 21 UKEX 5232 X

UKCA	UK Conformity Assessed
0518	Notified body: CSA UK
Ex	Explosion-proof equipment
II	Device group II (not mining)
2	Category 2 device (suitable for zone 1)
G	Ex-atmosphere gas
0.24 mJ	Maximum ignition energy
CSAE .. UKEX X	Number of type examination certificate "X": see chapter Identification "X" [►► 11].



Temperature notes

- Maximum surface temperature: 85 °C; 185 °F
- Maximum permissible product temperature: 50 °C; 122 °F
- Permissible ambient temperature: 0 to +40 °C; +32 to +104 °F

3.2 IDENTIFICATION "X"

Notice: CSAE 21 UKEX 5231 X

The EC Type Examination Certificate covers the following:

- The use of the spray gun in Zone 1
- The use of the VM 5000 or VM 500 control units as related equipment for the spray gun

The VM 5000 or VM 500 control unit may be used in zone 2. This usage is certified by the manufacturer (see operating manual of the control unit).

Notice: CSAE 21 UKEX 5232 X

The EC Type Examination Certificate covers the following:

- The use of the spray gun in Zone 1
- The use of the EPG 5000 control unit as related equipment for the spray gun.

Cable connections

Only cables assigned to the device may be used (see chapter Accessories [►► 71]).

Permissible device combinations

The GM 5000EAC manual spray gun may only be connected to the control units listed below:

- VM 500
- VM 5000

– EPG 5000

⚠ WARNING

Incorrect use!

Risk of injury and damage to the device.

- ▶ Connect the GM 5000EAC manual spray gun only to original WAGNER control units.

3.3 USE IN AREAS SUBJECT TO EXPLOSION HAZARDS

Electrostatic surface spraying

- ▶ Never spray device parts using electrostatic equipment (electrostatic spray gun)!



Cleaning

If there are deposits on the surfaces, the device may form electrostatic charges. Flames or sparks can form during discharge.

1. Remove deposits from the surfaces to maintain conductivity.
2. Use only a damp cloth to clean the device.



3.4 TYPE PLATE

1 

WAGNER
Wagner International AG
CH-9450 Altstätten

2 **GM 5000EAC**

3 Art. Nr.: 2309823

4 high voltage: max. 80kV DC

5 current: max. 100µA DC

6 max. mat. pressure: 25MPa; 250bar; 3626psi

7 max. air pressure: 0.8MPa, 8bar; 116psi

B_04366

UK
CA 0518
CE 2813

Ex II 2 G 0.24 mJ 9

CSAE 21 UKEX 5231 X
CSAE 21 UKEX 5232 X
SIRA 11 ATEX 5374 X
SIRA 16 ATEX 5290 X
BS EN 50050-1:2013
EN 50050-1:2013

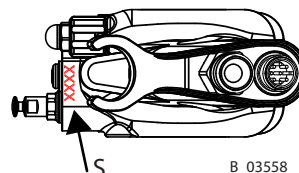
8 

10 For Electro. Fin. Appl. CL. I, GP. D, Spray Matl.
Ta = 0 °C – 40 °C, Temp code = T6

1	Warning: danger of injuries caused by high-pressure jet	6	Maximum product pressure
2	Device type	7	Maximum air pressure
3	Article number	8	Do not dispose of used electrical equipment with household refuse.
4	Maximum high voltage	9	Identification and test centre
5	Maximum current	10	For electrostatic finishing applications using class I, group D, spray product

Serial number

The serial number (S) on the underside of the handle.



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.
- ▶ Disconnect the power supply before starting maintenance or repair work on the device.
 - ▶ 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 dangerous fluids or vapors!

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

- ▶ Ensure that the floor in the working area is static dissipative in accordance with BS EN 1081:2018+A1:2020 or BS EN 61340-4-1:2004+A1:2015 (resistance must not exceed 100 MΩ).
- ▶ Paint mist extraction systems/ventilation systems must be fitted on site according to local regulations.
- ▶ Make sure that the ground connection and potential equalization of all system parts are reliable and continuous and can withstand the expected stress (e.g., mechanical stress, corrosion).
- ▶ Ensure that product hoses/air hoses adapted to the working pressure are used.
- ▶ Ensure that personal protective equipment is available and is used.



- ▶ Make sure that all people within the work area wear static dissipative shoes. The footwear must correspond to BS EN ISO 20344:2011. The measured insulation resistance must not exceed 100 MΩ.
- ▶ Ensure that during spraying, persons wear static dissipative gloves. The grounding takes place via the spray gun's handle or its trigger.
- ▶ Protective clothing including gloves, must correspond to 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 vicinity. Do not smoke.
- ▶ Ensure that the pipe joints, hoses, equipment parts and connections are permanently, technically leak-proof:
 - ▶ Periodic preventative maintenance and service (replacing hoses, checking tightness strength of connections, etc.)
 - ▶ Regular monitoring of leaks and defects via visual inspection and odor testing, e.g., daily before commissioning, at the end of work or weekly.
- ▶ Ensure that maintenance and safety checks are performed regularly.
- ▶ In the event of defects, immediately bring the device or system to a stop and arrange to have repairs carried out immediately.

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 dangerous fluids or vapors!

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

- ▶ When preparing or working with lacquer and when cleaning the device, follow the working instructions of the manufacturer of the lacquers, solvents and cleaning agents being used.
- ▶ Implement the prescribed safety measures, in particular the wearing of safety glasses, safety clothing and protective gloves as well as the use of protective hand cream.
- ▶ Use a mask or breathing apparatus if necessary.



- ▶ For sufficient health and environmental safety: Operate the device in a spray booth or on a spraying wall with the ventilation (extraction) switched on.
- ▶ Wear suitable protective clothing when working with hot products.

4.2.2 Safe Handling of WAGNER Spray Devices

Danger due to injection of lacquer or flushing agent into the skin!

The spray jet is under pressure and can cause dangerous injuries.

Avoid injection of lacquer or flushing agents:

- ▶ Never point the spray gun at people.
- ▶ Never reach into the spray jet.
- ▶ Perform the following measures before any work on the device, in the event of work interruptions and malfunctions:
 - ▶ Switch off the energy/compressed air supply
 - ▶ Relieve the pressure from the spray gun and device
 - ▶ Securing 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 and rectification.
- ▶ If needed, the liquid ejection devices must be checked by experts (e.g., WAGNER service technician) at least every 12 months for their work-safe condition in accordance with DGUV regulation 100-500 chapter 2.29 and chapter 2.36.
 - ▶ For shut down devices, the examination can be suspended until the next start-up.



In the event of skin injuries caused by lacquer or flushing agents:

- ▶ Note the lacquer or flushing agent that you have been using.
- ▶ Consult a doctor immediately.

Danger due to recoil forces!

Actuating the trigger can cause strong recoil forces. Thereby, the user can lose his balance and injure himself when falling.

Avoid risk of injury from recoil forces:

- ▶ Ensure that you have firm footing when operating the spray gun.



4.2.3 Grounding the device

Danger due to electrostatic charge!

Risk of injury, explosion hazard and damage to the device.

Friction, flowing liquids and air or electrostatic coating processes create charges. Flames or sparks can form during discharge. Correct grounding of the entire spraying system prevents electrostatic charges.

- ▶ Ensure that all devices and tanks are grounded before each spraying process.
- ▶ Make sure that the ground and potential equalization of all system parts are performed reliably and continuously and can withstand the expected stress (e.g., mechanical stress, corrosion).
- ▶ Earth the workpieces being painted.
- ▶ Ensure that all persons inside the working area are grounded, e.g., that they are wearing static dissipative shoes.



- ▶ Wear static dissipative gloves when spraying. The grounding takes place via the spray gun's handle or its trigger.

4.2.4 Product hoses

Danger due to bursting of product hose!

The product hose is under pressure and may cause dangerous injuries.

- ▶ Ensure that the hose material is chemically resistant to the sprayed products and the flushing agents used.
- ▶ Ensure that the product hoses and the fittings are suitable for the pressure generated.
- ▶ Ensure that the following information can be seen on the high-pressure hose:
 - ▶ manufacturer
 - ▶ permissible operating pressure
 - ▶ date of manufacture
- ▶ 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.
- ▶ The electrical resistance of the product hose, measured at both valves, must be less than 1 MΩ.
- ▶ Suction hoses may not be subjected to pressure.



4.2.5 Cleaning and flushing

Danger due to cleaning and flushing!

Explosion hazard and damage to the device.

- ▶ Non-ignitable cleaning agents and flushing agents should preferably be used.
- ▶ When carrying out cleaning work with flammable cleaning agents, make sure that all equipment and resources (e.g., collection tank, funnel, transport cart) are conductive or static dissipative and grounded.
- ▶ Observe the specifications of the lacquer manufacturer.
- ▶ Ensure that the flash point of the cleaning agent is at least 15 K above the ambient temperature or that cleaning is undertaken at a cleaning station with technical ventilation.
- ▶ Never use chloride or halogenated solvents (such as trichloroethane and methylene chloride) with devices containing aluminium or galvanized/zinc-plated parts. They may react chemically thus producing an explosion danger.
- ▶ Take measures for workplace safety.



- ▶ It should be noted that when the device is put into operation or emptied: depending on the coating product used, depending on the rinsing agent (solvent) used, there may briefly be a mixture inside the pipes and equipment which can ignite.
- ▶ Only use electrically conductive tanks for cleaning and flushing agents.
- ▶ The tanks must be grounded.

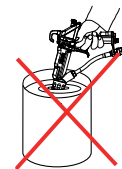
An explosive gas/air mixture forms in closed tanks.

- ▶ Never spray into a closed tank when using solvents for flushing.

External cleaning

When cleaning the exterior of the device or its parts, also observe the following:

- ▶ Relieve the pressure from the device.
- ▶ De-energize the device electrically.
- ▶ Disconnect the pneumatic supply line.
- ▶ Use only moistened cloths and brushes. Never use abrasive agents or hard objects and never spray cleaning agents with a gun. Cleaning the device must not damage it in any way.
- ▶ Ensure that no electric component is cleaned with or immersed into solvent.



4.2.6 Touching hot surfaces

Danger due to hot surfaces because of hot coating products!

Risk of burn injuries

- ▶ Only touch hot surfaces if you are wearing protective gloves.
- ▶ When operating the device with a coating product with a temperature of $> 43\text{ }^{\circ}\text{C}$; $109\text{ }^{\circ}\text{F}$, apply a warning label to the device that says "Warning - Hot Surface."



Instruction label: Order no. 9998910

Protection label: Order no. 9998911

Info

Order the two labels together.



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 suitably 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.
- ▶ Do not change or modify the device; if change is necessary, contact WAGNER.
- ▶ Only repair and replace parts that are listed in Chapters Accessories [▶ 71] 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:
 - ▶ Relieve the pressure from the spray gun, product hoses and all devices.
 - ▶ Secure the spray gun against actuation.

- ▶ Switch off the energy and compressed air supply.
- ▶ Disconnect the control unit from the mains.
- ▶ 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-Relevant Information about Discharges

The plastic parts of the spray gun are charged electrostatically by the high-voltage field. In case of contact with plastic parts, harmless discharges (brush discharges) may occur. They are completely non-hazardous for human health.

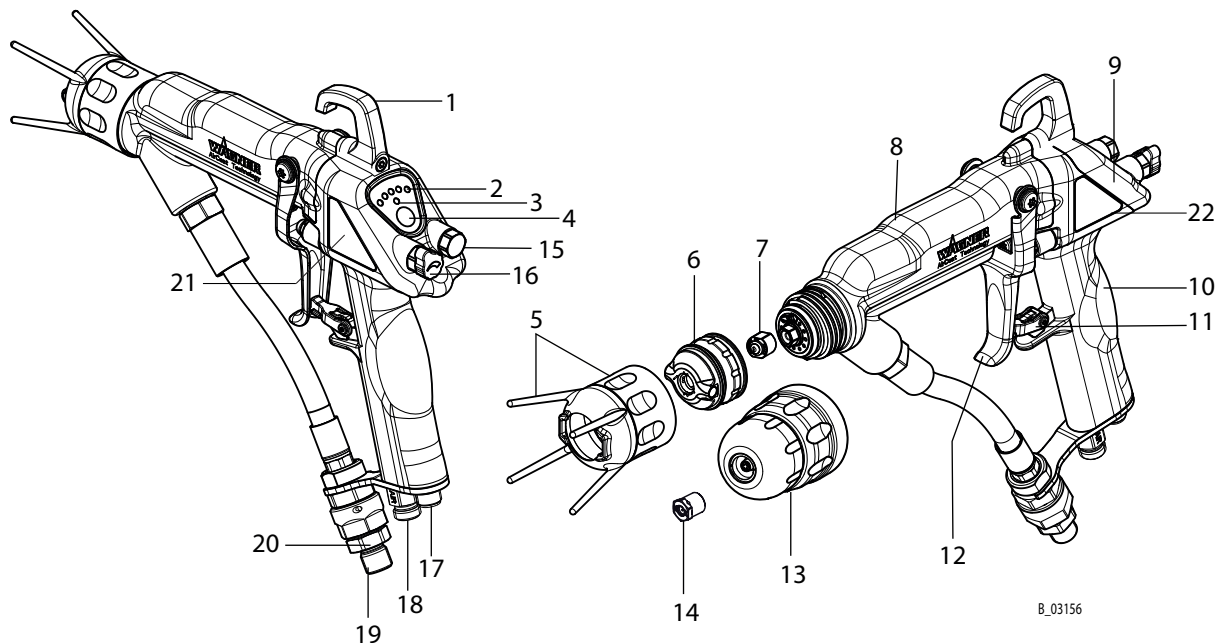
When keeping a distance of 4 to 10 mm; 0.15 to 0.4 inch between the spray gun and the object to be sprayed, the corona discharge at the end of the electrode is visible in the dark.

5 DESCRIPTION

5.1 STRUCTURE (BASIC VERSION)

Note:

The nozzle parts (pos. 6; 7; 13 and 14) do not belong to the basic equipment of the spray gun. The different design variants can be found in chapter Accessories [►► 71].



1	Suspension hook	12	Trigger lever
2	Display (spray current and recipe)	13	Round jet nozzle attachment (see chapter Accessories [►► 71])
3	Display standby	14	Round jet nozzle insert (see chapter Accessories [►► 71])
4	Operating button (standby and recipe change)	15	Sealing plug
5	Protection against contact with union nut	16	Air regulation
6	Air cap for flat jet nozzle (see chapter Accessories [►► 71])	17	Electric cable connection
7	ACF 5000 flat jet nozzle (see chapter Accessories [►► 71])	18	Atomizing air connection
8	Adapter	19	Product connection
9	Cover	20	Filter housing with filter
10	Handle	21	Type plate*, left
11	Trigger lock	22	Type plate*, right

* For information on the type plate and serial number, see chapter Type Plate [►► 12]

5.1.1 Securing the spray gun against actuation

Secure the spray gun against actuation:

1. Use the trigger lock (11) to engage the trigger lever (12).
 - Travel distances 2-3 blocked (see chapter Functioning [►► 20])
 - AirCoat air can still escape (travel distance 1)

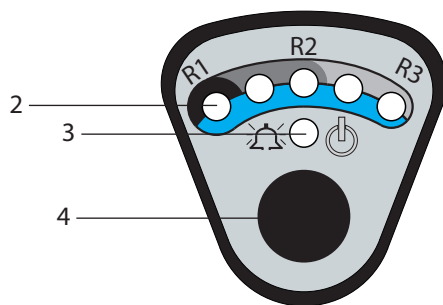
Note:

To secure the entire spraying system, pressure must be relieved as described in chapter Pressure Relief / Work Interruption [►► 39].

5.2 FUNCTIONING

Recipe display

When the spray gun is connected to the control unit and the control unit is switched on, the pre-defined recipe (R1, R2 or R3) is shown on the gun display (2) as follows.



B_03182

Recipe 1 → ●○○○ R1

Recipe 2 → ●●●○ R2

Recipe 3 → ●●●● R3

Recipe R1 → R2 → R3 → R1

Press the operating button (4) and hold the button pressed for at least 2 seconds to go forward 1 recipe.

Display (2) → ●●○○ = Recipe values changed temporarily:

If the operating key (4) is pressed for 2 seconds, the saved recipe values for the previously selected recipe number will be reloaded from the memory.

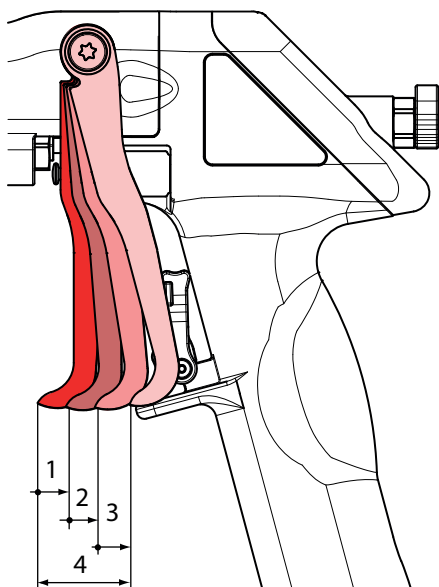
Status display during spraying mode

During spraying mode (trigger lever pressed), the status is shown in the display (2) by LEDs.

LED display	Description
LEDs 1 - 3 light up green	The spray gun is working in an optimal high-voltage spray current range.
One or both right-hand LEDs light up in orange. (Warning display: You can continue working without any limitations.)	Spray current too high. Possible causes: – Spray gun too close to the work piece – Contamination of the spray gun – Paint conductivity too high

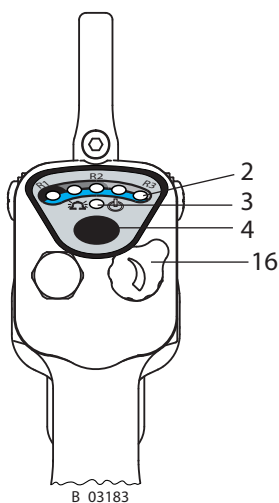
Trigger functions

The trigger can be used to activate, one after the other, the various functions of the spray gun.



B_03157

Distance	Description
1	AirCoat opens.
2	AirCoat opened and electrostatic (high voltage) activated. – Display (2) for [Spray current] on the spray gun ●○○○○ to ●●●●● activated.
3	AirCoat opened and electrostatic (high voltage) activated and product valve opened.
4	Total trigger path.



B_03183

- An increase in the force needed to pull the trigger back will be perceived at the position where the product valve opens.
- For spraying without high voltage, the high voltage can be switched off using the operating button (4). Press the operating button (4) briefly: High voltage is switched off. The [StandBy] display (3) lights up.

- In the event of a malfunction the spray gun switches to [StandBy] operating mode and the display (3) flashes.
- The relationship between shaping air / atomizing air is set using the **air regulation** (16).

5.3 EXTENT OF DELIVERY

Stk	Order no.	Designation
1	2309871	GM 5000EAC spray gun Without control unit, product and air hose, electric cable, air cap and nozzle.

Each spray gun includes the following as standard equipment:

Stk	Order no.	Designation
1	2309368	Valve needle assembly tool
1	2325263	Clamping screw assembly tool
1	2319653	Protection gloves against spray mist
1	2310487	Declaration of Conformity
1	2310481	Operating manual, in German
1	see chapter Languages [►► 7]	Operating manual in local language

The basic spray gun version can be adapted optimally to any application depending upon the requirements and the desired accessories with the help of the spray gun configurator. The delivery note shows the exact scope of delivery.

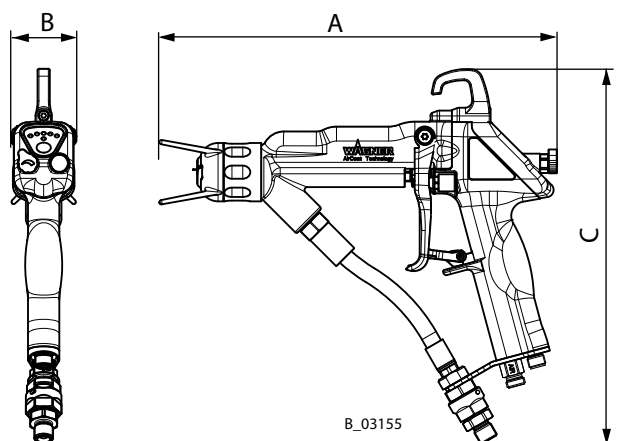
5.4 TECHNICAL DATA

Description	Units	GM 5000EAC
Maximum air pressure	MPa bar psi	0.8 8 116
Maximum product pressure	MPa bar psi	25 250 3626
Product connection	inch	NPSM 1/4" – 18
Air connection	inch	G 1/4" A
Weight (without hose set)	g	710 (incl. union nut, nozzle, air cap and edge filter)
Input voltage, maximum	Vpp	20
Input current, maximum	A AC	1.0
Output voltage, maximum	kV DC	80
Output current, maximum	µA DC	100
Operating temperature range	°C °F	0–40 32–104
Maximum permissible product temperature:	°C °F	50 122
Maximum surface temperature	°C °F	85 185

Description	Units	GM 5000EAC
Compressed air quality: free from oil and water	Quality standard 6.5.2 according to ISO 8573.1, 2010	
	mg/m ³	6: Particle density ≤ 5
	°C	5: Humidity: pressure dew point ≤ +7
	mg/m ³	2: Oil content ≤ 0.1
Sound level at 0.3 MPa; 3 bar; 43.5 psi air pressure and 11 MPa; 110 bar; 1549 psi product pressure *	dB(A)	73

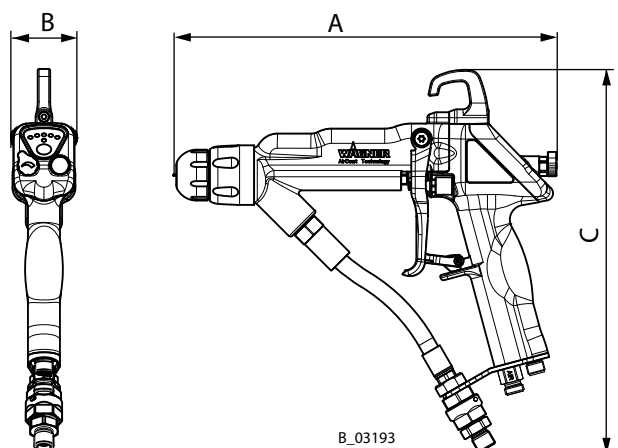
* A-rated emission sound pressure level measured at 1 m distance, LpA 1m, according to BS EN 14462:2015.

5.4.1 Dimensions of GM 5000EAC



Dimensions of **GM 5000EAC F** with flat jet nozzle

Pos	mm	inch
A	280	11.02
B	46	1.81
C	264	10.39



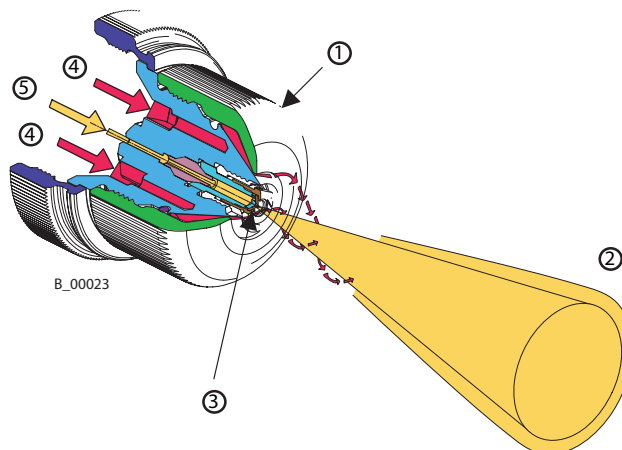
Dimensions of **GM 5000EAC R** with round jet nozzle

Pos	mm	inch
A	264	10.39
B	46	1.81
C	264	10.39

5.5 SPRAYING PROCEDURE

5.5.1 Spraying Procedure with Round Jet Nozzle

In the AirCoat process, the spray product is atomized under a pressure of 3–15 MPa; 30–150 bar; 435–2176 psi. With the help of an air pressure of 0–0.25 MPa; 0–2.5 bar; 0–36 psi a soft spray jet is produced. The spray jet size can be adjusted by turning the nozzle nut.



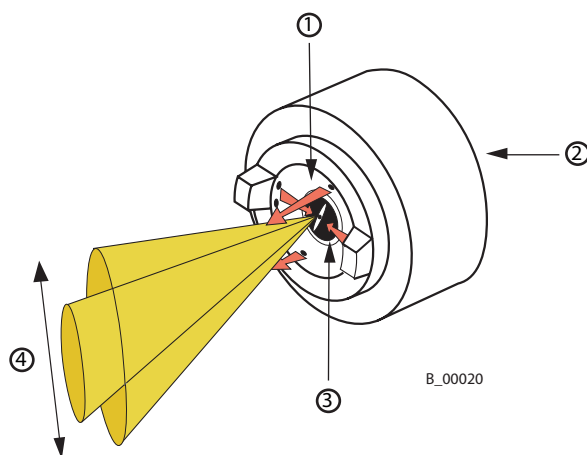
1	Nozzle nut	4	AirCoat air
2	Spray jet	5	Spray product
3	Multi-channel swirl nozzle		

Advantages

- Large application volume
- Low fogging tendency
- Good finish
- High-viscosity products can easily be processed
- Long service life of the nozzles
- Spray jet width adjustment

5.5.2 Spray process with Flat Jet Nozzle

In the AirCoat process, the spray product is atomized under a pressure of 3–15 MPa; 30–150 bar; 435–2176 psi. With the help of the AirCoat air, with a pressure of 0–0.25 MPa; 0–2.5 bar; 0–36 psi a soft, flat spray jet is produced which largely eliminates the problem of overlapping in the peripheral zones. With shaping air, there is the possibility of reducing the width of the spray jet.



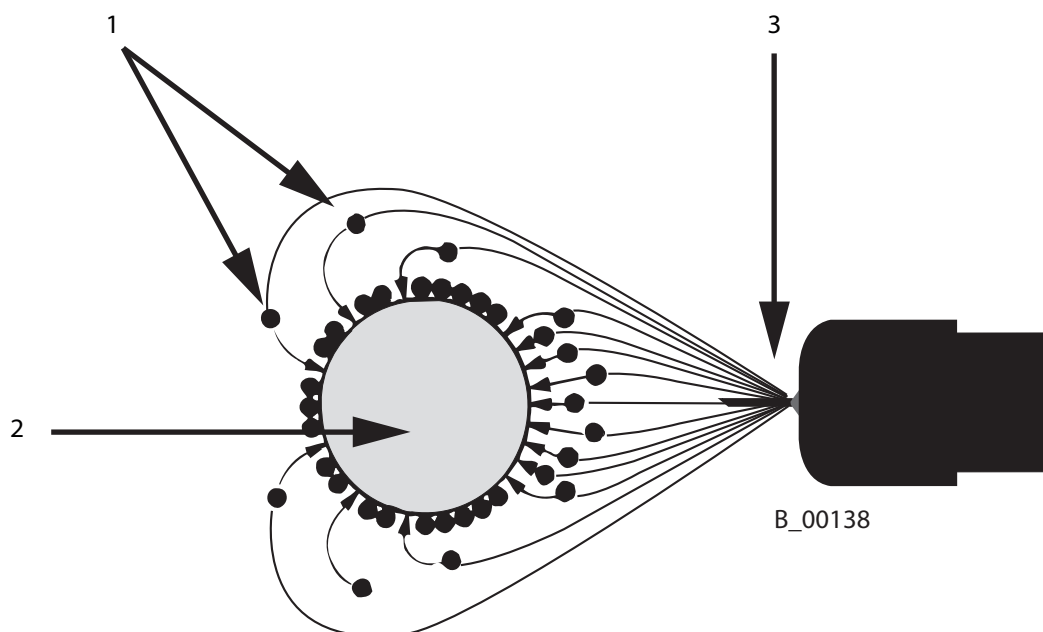
1	Shaping air	3	Atomizing air
2	Air cap	4	Variable spray jet width

Advantages

- Large application volume
- Low fogging tendency
- Good finish
- High-viscosity products can easily be processed
- Long service life of the nozzles
- Spray jet width adjustment

5.5.3 The Electrostatic Effect

The spray gun produces an electrostatic field by means of the high-voltage electrode. As a result, the paint particles atomized by the spray gun are carried to the grounded work piece by kinetic and electrostatic energy, where they adhere finely dispersed to the object to be sprayed.



1	Paint particle	3	Electrode
2	Object to be sprayed is conductive and grounded		

Advantages

- Very high application effectiveness
- Low over spray
- Coating of entire circumferences due to the electrostatic effect
- Savings in working time

5.6 PROTECTIVE AND MONITORING EQUIPMENT

⚠ WARNING

Protective and monitoring equipment

Risk of injury and damage to the device.

- ▶ 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.



The following functions are provided for safety:

- Electrical monitoring of high voltage and spray current (maximum ignition energy 0.24 mJ) → No ignition danger and no danger to persons.
- Electrical ground monitoring of the spray gun
- Anti-contact guard for flat jet nozzle

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 -20 °C and +60 °C (-4 °F and +140 °F).

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

6.3 INSTALLATION CONDITIONS

The air temperature at the installation site must be in a range between 0 and 40 °C; 32 and 104 °F.

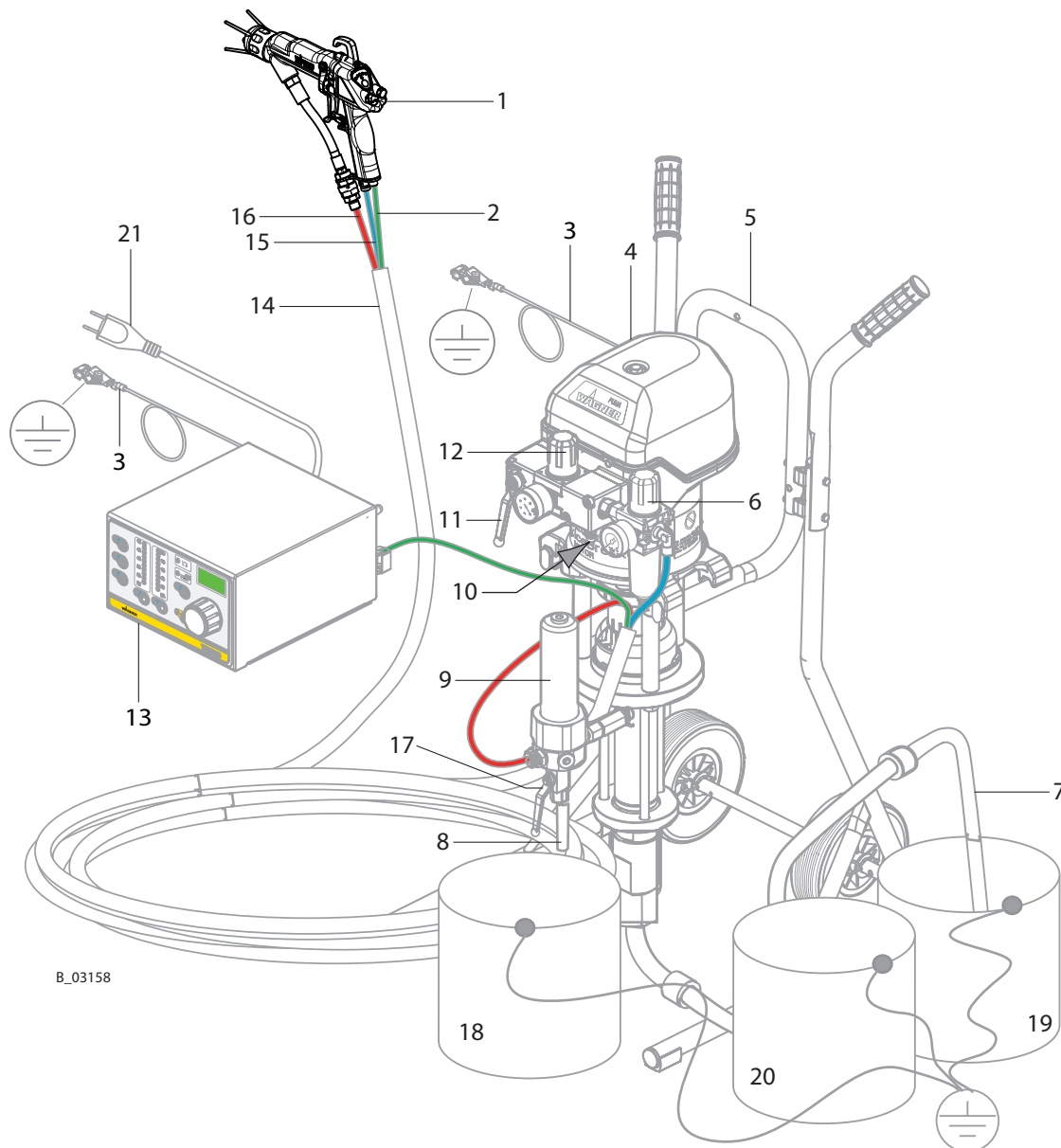
The relative air humidity at the installation site must be between 10 and 95% (without condensation).

6.4 ASSEMBLY AND INSTALLATION

Check the scope of delivery according to the delivery note. Become familiar with the function of the spray gun and all the other components used. Carefully read the accompanying operating manual.

Note the special requirements of the designated electrostatic AirCoat spray procedure.

6.4.1 Typical Electrostatic Spraying System



Example: Electrostatic spraying system with pressure tank

1	GM 5000EACF spray gun	12	Air pressure regulator
2	Gun cable	13	VM 5000 control unit
3	Grounding cable	14	Protective hose
4	Pneumatic pump	15	Air hose
5	Mobile bases	16	Product hose
6	Air pressure regulator + air filter	17	Return valve
7	Product suction system	18	Tank for return flow
8	Return hose	19	Paint tank
9	High-Pressure Filter	20	Tank for flushing agent
10	Compressed air connection	21	Mains cable
11	Stop valve		

The GM 5000EAC spray gun must be combined with various components to make up a spraying system (spray pack). The system shown in the figure is only one example of an electrostatic spraying system. Your WAGNER distributor would be happy to assist you in creating a spraying system solution that meets your individual needs. You must familiarize yourself with the operating manuals and the safety regulations of all additional system components before starting commissioning.

6.4.2 Ventilation of the Spray Booth

The electrostatic spraying equipment may only be operated in defined spraying areas and in accordance with the BS EN 16985:2018 standard or under comparable ventilation conditions.

The electrostatic spraying equipment must be locked to the technical ventilation so that the coating product supply and the high voltage are not effective as long as the technical ventilation is not operated with the minimum exhaust air volume flow or a larger exhaust air volume flow.

Ensure that the excess coating product (overspray) will be collected up safely.

WARNING

Toxic and/or flammable vapor mixtures!

Risk of poisoning and burns.

- ▶ Operate the device in a spray booth approved for the working materials.
Or:
- ▶ Operate the unit on an appropriate spraying wall with the ventilation (extraction) switched on.
- ▶ Observe national and local regulations for the outgoing air speed.



6.4.3 Air Supply Lines

WARNING

Hose connections!

Risk of injury and damage to the device.

- ▶ Do not mix up hose connections of product hose and air hose.
- ▶ Ensure that only dry, clean atomizing air is used in the spray gun! Dirt and moisture in the atomizing air worsens the spraying quality and spray pattern.



6.4.4 Product Supply Lines

! NOTICE

Impurities in the spraying system

Spray gun blockage, products harden in the spraying system.

- ▶ Flush the spray gun and paint supply with a suitable flushing agent before commissioning.

! DANGER

Bursting hose, bursting threaded joints!

Danger to life from injection of product.

- ▶ Ensure that the hose material is chemically resistant to the sprayed products.
- ▶ Ensure that the spray gun, fittings and product hose between the device and the spray gun are suitable for the pressure generated in the device.
- ▶ Ensure that the following information can be seen on the high-pressure hose:
 - ▶ Manufacturer
 - ▶ Permissible operating pressure
 - ▶ Date of manufacture



6.4.5 Grounding

During normal operation, perfect grounding of all conductive parts such as floors, walls, roofs, barriers, work pieces, transport devices, coating product tank, coating product supply or construction parts in the spray area, with exception of the high-voltage parts, is important for work safety and optimum coating.

Parts of the booth must be grounded in accordance with BS EN 16985:2018.

! DANGER

Discharge of electrostatically charged components in atmospheres containing solvents!

Explosion hazard from electrostatic sparks or flames.

- ▶ Earth all unit components.
- ▶ Earth the workpieces being painted.
- ▶ Use only a damp cloth to clean the device.



! WARNING

Heavy paint mist if grounding is insufficient!

Risk of poisoning.

Insufficient paint application quality

- ▶ Earth all unit components.
- ▶ Earth the workpieces being painted.



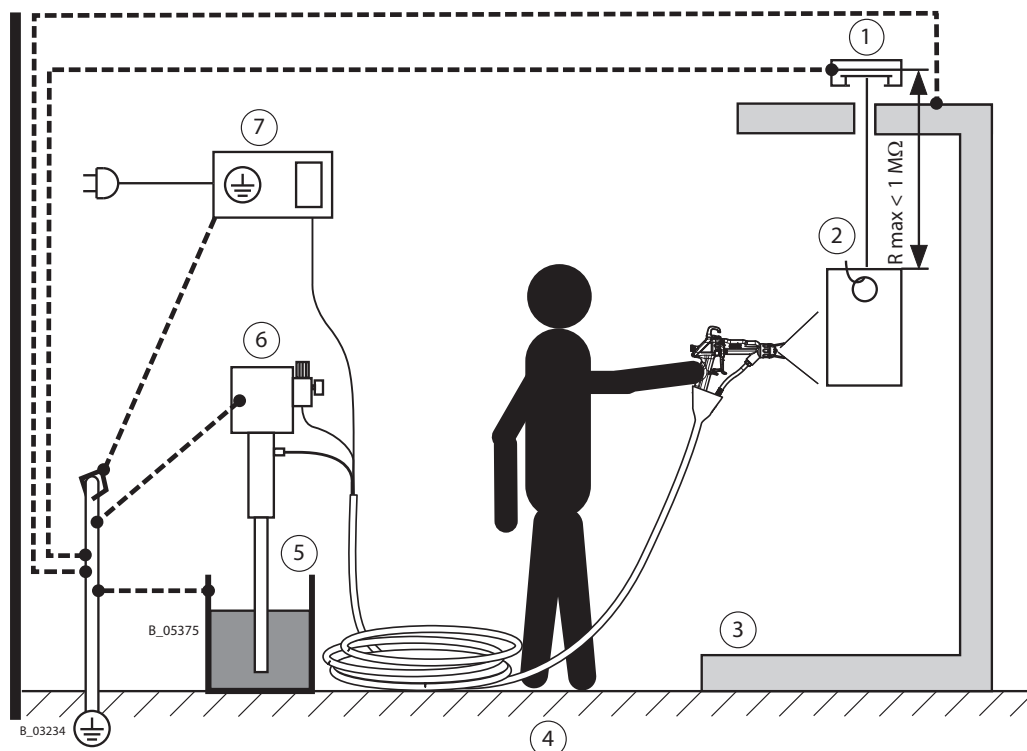
A poorly grounded work piece causes:

- Very bad wrap around
- Uneven coating

- Back spraying to the spray gun (contamination) and coater

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

- Electroconductive suspension for the work piece that is to be coated
- Grounding of spray booth, conveyor system and suspension equipment on the building side in accordance with the operating manuals or the manufacturer's information.
- Grounding of all conductive parts within the working area.
- That a grounding resistance of the work piece of 1 MΩ is not exceeded (resistance to ground measured at 500 V or 1000 V)
- Connect the control unit to the signal ground.
- Connect all grounding cables using a short and direct route.
- Safety shoes and gloves, if used, must be static dissipative.



Earthing schema (example)

Pos	Part / workstation	Minimum cable cross section
1	Conveyor	16 mm ² / AWG 6
2	Work piece	—
3	Spraying stand Alternative: Spray booth	16 mm ² / AWG 6
4	Floor, static dissipative	—
5	Paint tank	4 mm ² / AWG 12
6	Product pressure generator	4 mm ² / AWG 12
7	Control unit	4 mm ² / AWG 12

Grounding of spray gun

The spray gun is grounded via the spray gun's cable.

- The GM 5000EAC spray gun must be connected to the VM 500, VM 5000 or EPG 5000 control unit via the spray gun cable.

Notice for the coater

Safety shoes and gloves, if used, must be static dissipative.

6.5 LACQUER PREPARATIONS

The viscosity of the lacquer is of great importance. The best spraying results are obtained with values between 25 and 40 DIN/4 seconds (measured in immersion flow cup DIN 4 mm; 0.16 inch).

Processing of up to 60 DIN/4 seconds is generally possible without problem if high coating thicknesses are required.

With the WAGNER AirCoat flat jet spraying process, the different viscosities of the lacquer are optimally covered by two air cap types. These can be found in "Accessories".

In the case of application problems contact the lacquer manufacturer.

6.5.1 Viscosity Conversion Table

Millipascal × sec	Centipoise	Poise	DIN cup 4 mm	ISO cup			Ford cup Number 4	Zahn cup Number 2
				4 mm	5 mm	6 mm		
mPa s	cP	P	sec	sec	sec	sec	sec	sec
10	10	0.1	--	14	--	--	5	16
15	15	0.15	--	17	--	--	8	17
20	20	0.2	--	20	--	--	10	18
25	25	0.25	14	23	--	--	12	19
30	30	0.3	15	26	--	--	14	20
40	40	0.4	17	33	--	--	18	22
50	50	0.5	19	40	--	--	22	24
60	60	0.6	21	47	--	--	26	27
70	70	0.7	23	54	--	--	28	30
80	80	0.8	25	62	28	--	31	34
90	90	0.9	28	70	31	--	32	37
100	100	1	30	78	34	--	34	41
120	120	1.2	33	90	40	--	41	49
140	140	1.4	37	105	46	--	45	58
160	160	1.6	43	--	52	--	50	66
180	180	1.8	46	--	58	28	54	74
200	200	2	49	--	63	31	58	82
220	220	2.2	52	--	69	34	62	--
240	240	2.4	56	--	75	37	65	--
260	260	2.6	62	--	82	40	68	--
280	280	2.8	65	--	89	43	70	--
300	300	3	70	--	95	46	74	--
320	320	3.2	--	--	--	48	--	--
340	340	3.4	--	--	--	51	--	--
360	360	3.6	80	--	--	54	--	--
380	380	3.8	--	--	--	57	--	--
400	400	4	90	--	--	60	--	--

6.6 START UP

! NOTICE

Impurities in the spraying system

Spray gun blockage, products harden in the spraying system.

- ▶ Flush the spray gun and paint supply with a suitable flushing agent before commissioning.
1. Make sure that all other conductive parts within the work area are grounded, see chapter Grounding [▶▶ 30].
 2. Connect the product hose to the spray gun and the product pump or the pressure tank.
 3. Check that all product-conveying connections are correctly connected.
 4. Connect air hose to spray gun and to supply of oil-free dry air, approx. 0.25 MPa; 2.5 bar; 36 psi, see compressed air quality in chapter Technical Data [▶▶ 22].
 5. Check that all air-conveying connections are correctly connected.
 6. Connect the electric cable to the spray gun and to the VM 500, VM 5000 or EPG 5000 control unit, see chapter Gun Cables and Gun Cable Extensions [▶▶ 33].
 7. Visually check the permissible pressures for all the system components.
 8. Check the level of the separating agent in the pump and fill up if necessary.
 9. Provide product tank, tanks for flushing agent and an empty tank for return flow.
 10. Connect the system to the air and power supply.
 11. A basic flushing of system must be carried out before commissioning. Make sure that no nozzle is inserted into the gun.

6.6.1 Gun Cables and Gun Cable Extensions

! DANGER

Sparks form when the plug is removed!

Explosion hazard.

- ▶ When using the spray gun in potentially explosive areas:
The cable connection on the gun and the connection to any cable extensions may not be disconnected or connected in this area.



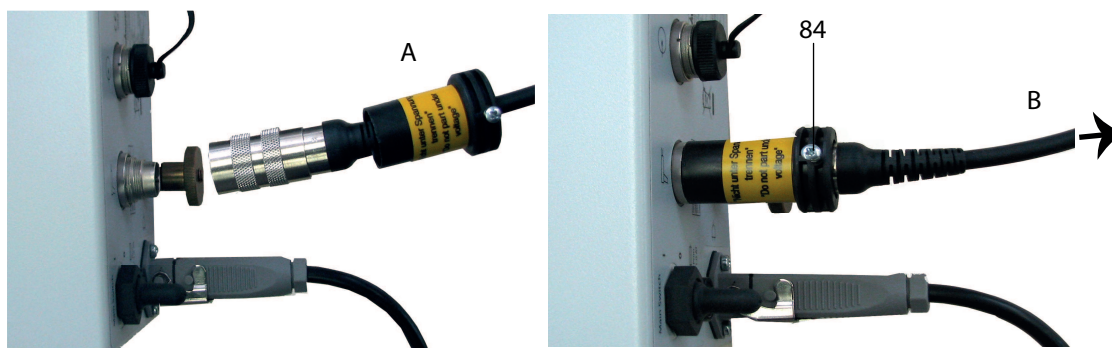
The following points must be noted:

- The cable connection to the gun and the connection to a cable extension may not be disconnected or connected in a potentially explosive area.
- Only disconnect or connect all cable extensions from the gun cable and the cable extension when the control unit is switched off.
- In order for the GM 5000EAC spray gun to be grounded, it must be connected via the VM 500, VM 5000 or EPG 5000 control unit.

Gun cable is available in various lengths. For order numbers, see chapter Gun Cables and Gun Cable Extensions [▶▶ 78].

Attention: gun cable to control unit

Secure the cover sleeve with the warning sign with the screw (84) on the connector.



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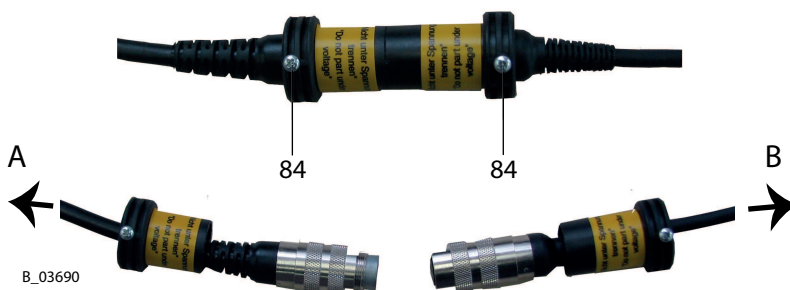
A	Warning notice: "Do not disconnect under voltage"	B	GM 5000E gun cable
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Attention: guns with electric extension cable

Secure the cover sleeves with the warning sign with the screws (84) on the connectors.

Power loss

In order to prevent power losses, keep the cable length as short as possible. The maximum power is available with the standard cable length of 10 m. An extension of the gun cable to a total length of up to 40 m will cause a power loss of up to 10%. The gun cable can be extended to a total length of 80 m. However, a power loss of up to 30% will be caused.



B_03690

A	Extension cable to the control unit	B	GM 5000E gun cable
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6.6.2 Verifying a Safe Operational Condition

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

This includes:

- Safety checks in accordance with chapter Safety Checks and Maintenance Intervals [►► 50].
- Function test in accordance with chapter Function Test after Repair Work [►► 67].

6.7 SAFETY CHECKS

- Safety checks in accordance with chapter Safety Checks and Maintenance Intervals [►► 50].

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

DANGER

High-voltage field!

Danger to life from malfunction of heart pacemakers. Make sure that persons with pacemakers:

- ▶ do not work with the electrostatic spray gun,
- ▶ don't stay inside the area of the electrostatic spray gun/work piece.



WARNING

Discharge of electrostatically charged components in atmospheres containing solvents!

Explosion hazard from electrostatic spark-over.

- ▶ Use spray gun only with fitted nozzle, air cap and union nut.



1. Ensure that:
 - ▶ the control unit was not opened;
 - ▶ the regular safety checks are carried out in accordance with chapter Safety Checks and Maintenance Intervals [▶▶ 50];
 - ▶ commissioning is carried out in accordance with chapter Assembly and commissioning [▶▶ 27].

7.2.1 Emergency Deactivation

In the case of unforeseen occurrences, proceed as follows:

1. Switch off control unit.
2. Close the compressed air supply.
3. Relieve pressure according to the operating manual of the product pressure generator.
4. Point the spray gun toward the grounded collecting tray.
5. Pull the trigger of the spray gun until no further pressure is present.

A detailed line drawing of a Honda outboard motor assembly, including the motor, control panel, and fuel system. The diagram is annotated with numbered callouts (1-21) and includes ground symbols. The components are as follows:

- 1: Propeller and lower unit assembly.
- 2: Fuel line connecting the tank to the carburetor.
- 3: Ignition switch with a ground symbol.
- 4: Throttle lever.
- 5: Throttle cable.
- 6: Carburetor.
- 7: Fuel tank.
- 8: Fuel filter.
- 9: Fuel line from the tank to the filter.
- 10: Fuel line from the filter to the carburetor.
- 11: Spark plug.
- 12: Spark plug cap.
- 13: Control panel with a digital display and various controls.
- 14: Main power cable.
- 15: Battery connection point on the cable.
- 16: Battery connection point on the cable.
- 17: Fuel line from the tank to the filter.
- 18: Fuel tank.
- 19: Fuel tank.
- 20: Fuel tank.
- 21: Power cable with a ground symbol.

1. Place empty tank (18) under return tube (8).
2. Place suction hose (7) in tank with working product (19).
Note: If the pump is equipped with a rigid suction system, it should only be dipped into the working product up to the middle of the inlet housing at the maximum!
3. Adjust the pump-pressure regulator (12) to approx. 0.05 MPa; 0.5 bar; 7.25 psi.
4. Open return valve (17).
5. Slowly open the ball valve (11).
6. Adjust the air pressure on the pump-pressure regulator (12) so that the pump runs smoothly.
7. Close ball valve (11) as soon as pure working product starts coming from the return tube (8).
8. Close return valve (17).

9. Point the gun, without nozzle, into the tank (18) and pull the trigger.
10. Slowly open the ball valve (11).
11. Close ball valve (11) as soon as pure working product without air bubbles is flowing.
12. When there is no pressure remaining in the system, close the gun.
13. Secure the gun.
14. Dispose of the contents of the tank (18) according to the local regulations.

7.4 CHECKING THE SPRAY PATTERN (WITHOUT ELECTROSTATICS)

1. Switch off control unit. (The grounding of the spray gun is maintained via the gun cable.)
2. Start up with product pressure generator set to approx. 8 MPa; 80 bar; 1160 psi operating pressure. See corresponding operating manual.

Flat-jet method:

Airless spraying (without electrostatics)

1. Turn air pressure regulator (6) all the way down.
2. Spray (actuate trigger) and check the product atomization.
3. Set the spray pressure on the product pressure generator until good product atomization is achieved.

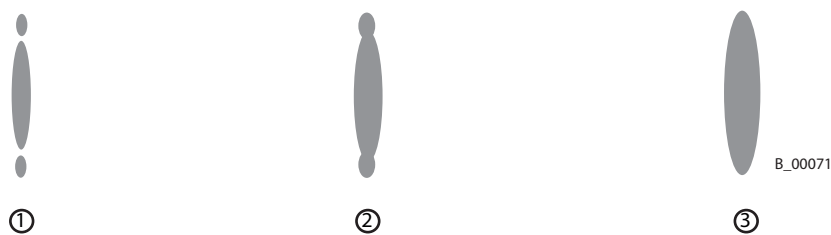
For round and flat-jet method:

AirCoat spraying (without electrostatics)

1. Adjust the air pressure regulator (6) until optimal atomization is achieved, see below [Set spray pattern with the air pressure regulator].
2. With the air regulation on the gun, set the ratio of shaping air/atomizing air so as to achieve an optimum spray pattern, see below [spray pattern and air regulation].
3. Repeat points 1 and 2 until the optimum spray pattern is reached (iterative process).

Setting the spray pattern using the air pressure regulator (6)

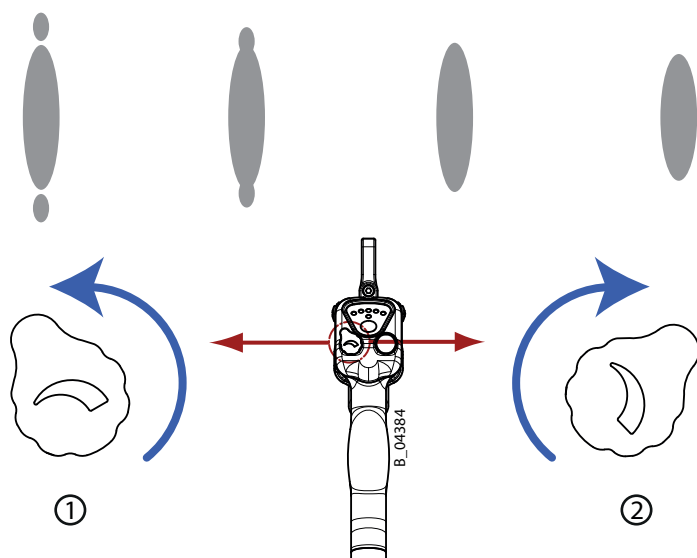
The air pressure regulator regulates the air supply (shaping and atomizing air) to the gun.



1	No air	3	Correct amount of air
2	Not enough air		

Spray pattern and air regulation

The spray pattern can be optimally adjusted to suit the object being sprayed using the air regulation. The illustration shows the influence of the regulator on the spray pattern. Other nozzle sizes can be used to obtain larger or smaller spray patterns.



1	Air regulation closed = minimum shaping air	2	Air regulation fully opened = maximum shaping air
---	--	---	--

Changing the flow rate

1. Adapt product pressure.
2. Use a different nozzle (see chapter Accessories [>> 71]).

Changing the spray jet width

- ▶ Use a different nozzle (see chapter Accessories [>> 71]).

7.5 SPRAYING

1. Secure spray gun with trigger lock and insert the desired nozzle.
2. Turn on the control unit. See corresponding operating manual.
3. Start up with product pressure generator set to approx. 8 MPa; 80 bar; 1160 psi operating pressure. See corresponding operating manual.

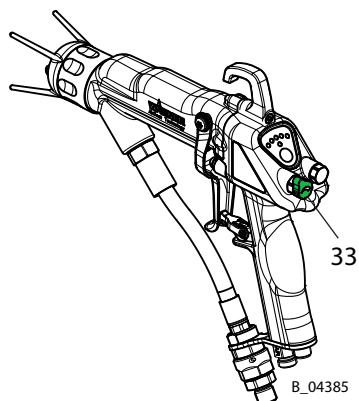
AirLess spraying

1. Turn air pressure regulator (6) all the way down.
2. Spray on a test object (pull trigger).
⇒ Pressing the trigger on the spray gun switches the high-voltage supply on.
3. Adjust the product pressure and gun air in accordance with the nozzle and object.

AirCoat spraying

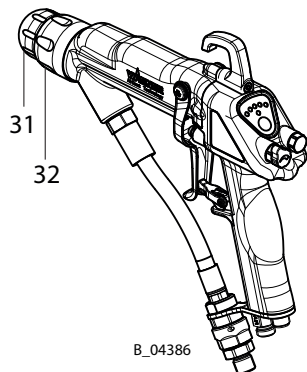
- ▶ Open the air pressure regulator (6) (approx. 0.05 - 0.25 MPa; 0.5 - 2.5 bar; 7 - 36 psi) and adjust for optimal atomization.

Flat-jet method: Changing the spray jet width



1. Change the spray jet width by selecting the appropriate nozzle.
2. By turning the air regulation (33), the spray jet can additionally be adjusted.

Round-jet method



- By gently turning the nozzle nut (31), the atomizing air jet can additionally be adjusted.
 - ⇒ **Do not completely tighten the nozzle nut:**
Do not turn the nozzle nut (31) until it is flush with the nozzle body (32). There must be play for the atomizing air between the nozzle nut and the nozzle body.

The air adjustment at the back of the spray gun does not affect the spray pattern in this process.

Flow rate

Flow rate may be able to be reduced by:

1. Minimizing the product pressure.
2. Using a different nozzle size (see chapter Accessories [►► 71]).

7.6 PRESSURE RELIEF / WORK INTERRUPTION

The pressure must always be relieved:

- after the spraying tasks are finished,
- before servicing or repairing the spraying system,
- before carrying out cleaning tasks on the spraying system,
- before moving the spraying system to another location,
- before something must be checked on the spraying system,
- before the nozzle is removed from the spray gun.

Observe general safety instructions in chapter Basic safety instructions [►► 13].

⚠ WARNING

High-pressure spray jet!

Danger to life from injecting paint or solvent.

- ▶ Never reach into the spray jet.
- ▶ Never point the spray gun at people.
- ▶ Consult a doctor immediately in the event of skin injuries caused by paint or solvent. Inform the doctor about the paint or solvent used.
- ▶ Never seal defective high-pressure parts, instead relieve the pressure from them and replace them immediately.
- ▶ Wear the appropriate protective clothing, gloves, eyewear, and respirator.



Depressurizing the spray gun

1. Secure the spray gun with the trigger lock.
2. Switch off control unit.
3. Close the compressed air supply.
4. Relieve pressure according to the operating manual of the product pressure generator.
5. Point the spray gun toward the grounded collecting tray.
6. Pull the trigger of the spray gun until no further pressure is present.
7. Secure the spray gun with the trigger lock.

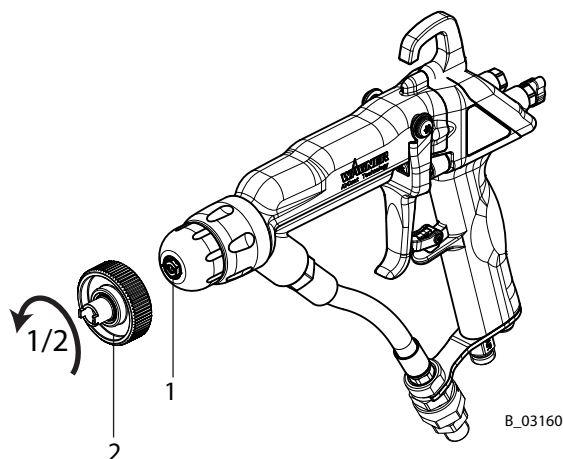
7.7 FLUSHING OUT CLOGGED ROUND JET NOZZLES

⚠ DANGER

Exploding gas / air mixture!

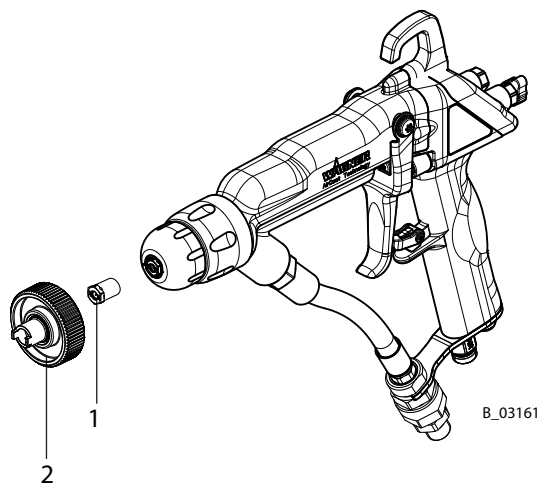
Danger to life from flying parts and burns.

- ▶ Never spray into a closed tank.
- ▶ Ground the tank.



1. Use nozzle wrench (2) to loosen nozzle insert (1) by a half turn.
2. Remove the nozzle wrench and briefly actuate trigger.
3. After flushing, re-tighten the nozzle insert.

7.8 REPLACING NOZZLE INSERT OF ROUND JET NOZZLE



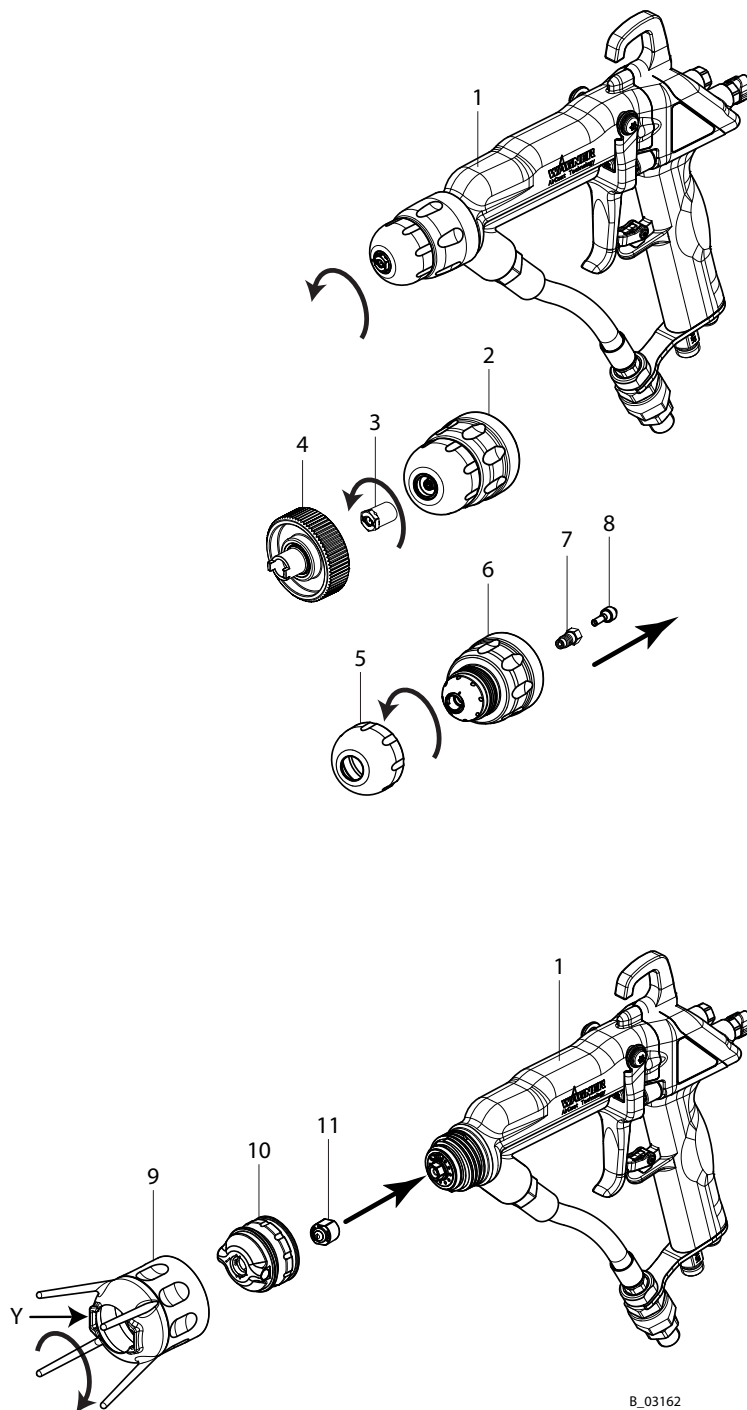
1. Remove nozzle insert (1) using nozzle wrench (2).
2. Assembling new nozzle insert.

7.9 CHANGING FROM AIRCOAT ROUND JET / AIRCOAT FLAT JET

Flushing spray gun

1. Switch off control unit.
2. Relieve pressure (see chapter Pressure Relief / Work Interruption [►► 39]).
3. Connect the system to the flushing agent supply.
4. Set product pressure. Close atomizing air regulator.
5. Thoroughly flush out the spray gun.
6. Relieve pressure (see chapter Pressure Relief / Work Interruption [►► 39]).
7. Secure the spray gun with the trigger lock.

Changing from round jet to flat jet



B_03162

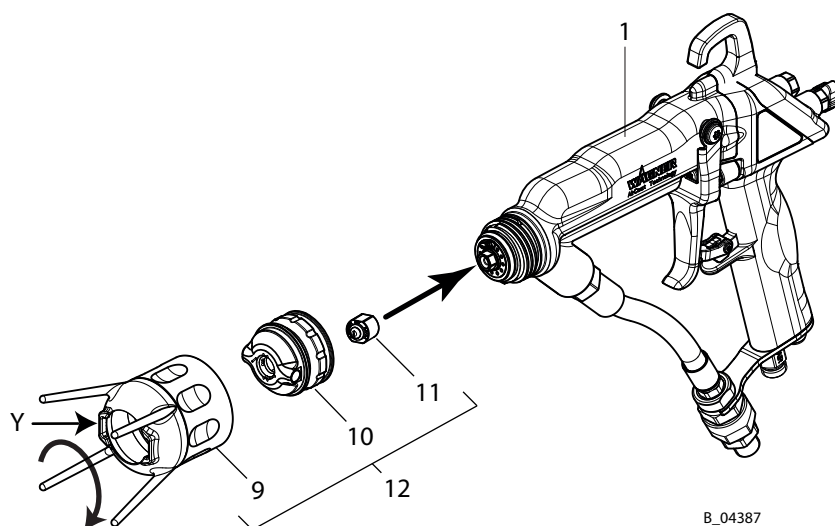
1. Unscrew round jet nozzle attachment (2) incl. nozzle insert (3).
2. Unscrew nozzle insert (3) using nozzle wrench (4).
3. Unscrew nozzle nut (5). Remove nozzle screw joint (7) and sealing fitting (8) from the nozzle body (6). Thoroughly clean all parts.
4. Insert desired ACF5000 nozzle (11) into the valve housing.
5. Put the air cap (10) on the nozzle (11) and pay attention to the position of the guide surfaces.

6. Screw union nut with attached nozzle guard (9) to the gun body and make sure that the air cap horns lie in the designated recess (Y).
7. Before tightening with the air cap horns (Y), set the desired jet level and then tighten the union nut to stop by hand.

Changing from flat jet to round jet

1. Unscrew union nut (9) with air cap (10) and ACF5000 nozzle (11).
2. Remove air cap (10).
3. Press ACF5000 nozzle (11) out of air cap (10) by hand. Thoroughly clean all parts.
4. Insert nozzle screw connection (7) and sealing fitting (8) into nozzle body (6).
5. Screw nozzle nut (5) onto nozzle body (6). Do not screw on nozzle nut completely.
⇒ There must be play for the atomizing air between the nozzle nut and the nozzle body.
6. Screw on nozzle insert (3) using nozzle wrench (4).
7. Screw round jet nozzle attachment (2) with nozzle insert (3) onto spray gun and tighten by hand.

7.10 REPLACING THE AIRCOAT FLAT JET NOZZLES



1. Switch off control unit.
2. Relieve pressure (see chapter Pressure Relief / Work Interruption [►► 39]).
3. Secure the spray gun with the trigger lock.
4. Unscrew union nut completely (12) and remove air cap (10).
5. Remove and clean the ACF 5000 AirCoat nozzle (11).

! NOTICE

Defective AirCoat nozzle!

Insufficient paint application quality.

- Do not use sharp-edged objects on the carbide on the nozzle.

6. Insert new ACF 5000 nozzle (11) into the valve housing.
7. Put the air cap (10) on the nozzle (11) and pay attention to the position of the guide surfaces.

8. Screw union nut with attached nozzle guard (9) to the gun body and make sure that the air cap horns lie in the designated recess (Y).
9. Before tightening with the air cap horns (Y), set the desired jet level and then tighten the union nut to stop by hand.

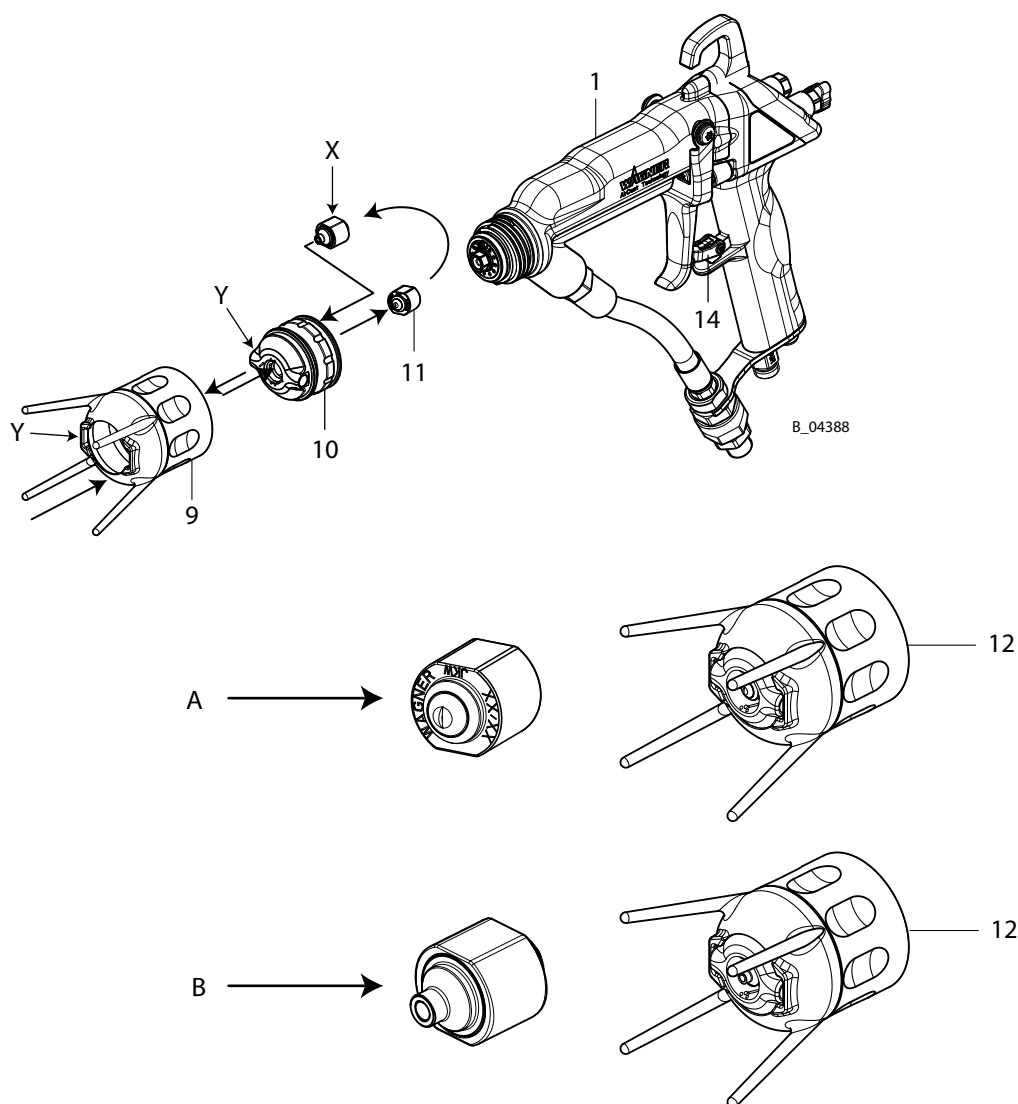
7.11 CLEANING OF THE NOZZLE PARTS

The AirCoat ACF 5000 nozzles (11), the nozzle inserts (3) and the nozzle screw connection (7) can be placed in a cleaning solvent recommended by the lacquer manufacturer.

All other nozzle components must not be placed in the cleaning solution.

Clean these parts with a cleaning solvent recommended by the lacquer manufacturer and dry with a cloth or blow gun.

7.12 ELIMINATING NOZZLE CLOGGING



A	ACF5000 nozzle in spray position	B	ACF5000 nozzle in cleaning position
---	----------------------------------	---	-------------------------------------

1. Switch off control unit.
2. Relieve pressure (see chapter Pressure Relief / Work Interruption [►► 39]).
3. Secure the spray gun (1) using the trigger lock (14).

4. Unscrew union nut completely (12) and remove air cap (10).
5. Push ACF 5000 nozzle (11) out of air cap (10) by hand, reverse it and put it into the air cap (10) with the nozzle tip towards the rear. Pay attention to the position of the guide surfaces (X).
6. Insert air cap (10) with integrated ACF 5000 nozzle (11) into the union nut (9). Make sure that the air cap horns (Y) lie in the recess of the nozzle guard.
7. Screw complete preassembled union nut (12) to gun (1) and tighten by hand.
8. Switch the product pressure back on.
9. Turn the trigger lock (14) to the spraying position and briefly pull the trigger.
10. When the blockage has been flushed out, secure the gun with trigger lock (14).
11. Relieve pressure (see chapter Pressure Relief / Work Interruption [►► 39]).
12. Unscrew union nut (12) completely.
13. Remove air cap (10) and push ACF 5000 nozzle (11) out of the air cap by hand. Clean ACF 5000 nozzle and in the spraying position, insert it back into the valve housing.
14. Put the air cap (10) on the nozzle (11) and pay attention to the position of the guide surfaces (X).
15. Screw union nut with attached nozzle guard (9) to the gun body and make sure that the air cap horns lie in the designated recess (Y).
16. Before tightening with the air cap horns (Y), set the desired jet level and then tighten the union nut to stop by hand.
17. Switch the product pressure and the air pressure back on.
18. Switch on the control unit.

7.13 CHANGING THE VALVE HOUSING

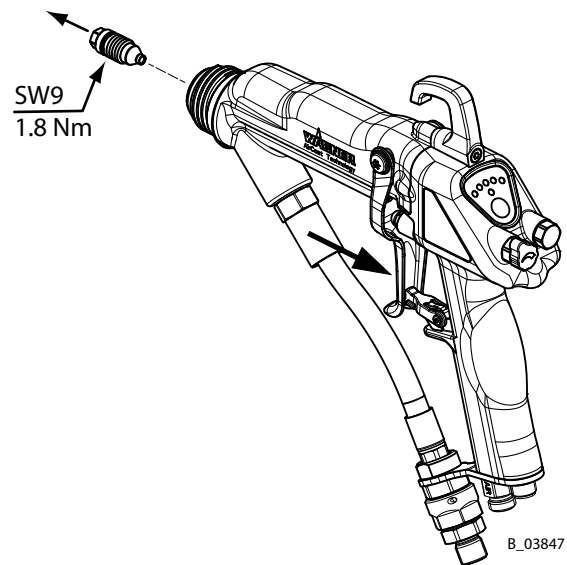
NOTICE

Changing the valve housing!

Damage to the device.

- Activate the trigger when changing the valve housing.

To prevent damage to the gun (valve seat rubs on the valve needle, valve needle may loosen), activate the spray gun trigger when changing the valve housing. Use a socket or ring wrench (not a combination wrench) to tighten the valve housing.



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:

- risk to health from inhaling solvent vapors
- use of unsuitable cleaning tools and aids

8.1.2 Safety Instructions

DANGER

Explosive powder/air mixes!

Danger to life and equipment damage.

- ▶ Before starting cleaning, flushing, or other manual work, the high voltage must be shut down and locked to prevent it from being switched back on!
- ▶ The spray gun must be separated from the high-voltage supply before any cleaning work is started.
- ▶ Only electrically conductive tanks may be used for cleaning and flushing agents. Ground the tank.
- ▶ Preference should be given to non-ignitable cleaning and flushing agents.
- ▶ If ignitable solvents are used, the cleaning and flushing agent's flash point must be at least 15 K above the ambient temperature.
- ▶ Ignitable solvents and solvent gases must be completely removed, before the system can be recommissioned.
- ▶ Ensure that no electric component is cleaned with or immersed into solvent.



NOTICE

Damage to electrical devices!

Never immerse the spray gun in cleaning agent.

8.1.3 Cleaning and flushing the device

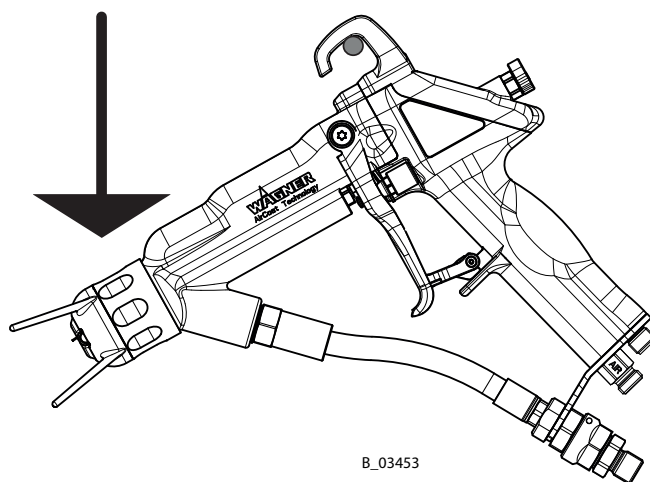
! NOTICE

Liquid in air tube!

Functional faults caused by swollen seals.

Discharge current to ground → No high voltage.

- ▶ Always point the spray gun down when cleaning.
- ▶ Ensure that neither lacquers nor cleaning or flushing agent enters the air duct.
- ▶ When taking a break from work or when stored for a longer period, the spray gun should be positioned with the adapter pointing downwards.



Regular flushing

1. The spraying system and the spray gun must be cleaned and flushed daily.
2. The cleaning and flushing agents used must be compatible with the working material.

! WARNING

Incompatibility of cleaning/flushing agent and working medium!

Risk of explosion and danger of poisoning by toxic gases.

- ▶ Examine the compatibility of the flushing and cleaning agents and working media on the basis of the safety data sheets.



Flushing procedures

1. Switch off control unit.
2. Relieve pressure (see chapter Pressure Relief / Work Interruption [▶▶ 39]).
3. Close air pressure regulator.
4. Connect spraying system to flushing agent supply in accordance with operating manual for the pump.
 - ▶ **With mounted round jet nozzle:**
Use nozzle wrench to loosen nozzle insert by half a turn.
 - ▶ Direct the spray gun into the collecting tray and actuate the trigger. Flush the gun thoroughly as soon as clean flushing agent emerges.
 - ▶ Relieve pressure (see chapter Pressure Relief / Work Interruption [▶▶ 39]).

- ▶ Re-tighten the nozzle insert.
 - ▶ Remove flushing agent supply.
 - ▶ **With the mounted flat jet nozzle:**
Dismount AirCoat nozzle and clean separately (see Replacing the AirCoat Flat Jet Nozzles [▶▶ 43]).
 - ▶ Direct the spray gun into the collecting tray and actuate the trigger.
 - ▶ Flush the gun thoroughly as soon as clean flushing agent emerges.
 - ▶ Relieve pressure (see chapter Pressure Relief / Work Interruption [▶▶ 39]).
 - ▶ Remove flushing agent supply.
5. Close pump pressure regulator. Switch on compressed air supply and open air pressure regulator.
 6. Press the trigger of the spray gun and thoroughly blow out the air passages.
 7. Switch off the compressed air supply.
 8. Clean the spray gun body and other components of the spraying system with a cleaning agent recommended by the lacquer manufacturer and dry with a cloth or blow gun.

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:

- risk to health from inhaling solvent vapors
- 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 Safety Instructions

DANGER

Incorrect maintenance/repair!

Danger to life and equipment damage.

- ▶ Only a WAGNER service center or a suitably 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:
 - ▶ Relieve the pressure from the spray gun, product hoses and all devices.
 - ▶ Secure the spray gun against actuation.
 - ▶ Switch off the energy and compressed air supply.
 - ▶ Disconnect the control unit from the mains.
- ▶ Observe the operating and service manual for all work.



Prior to maintenance

- ▶ Flush and clean the system according to chapter Cleaning and flushing the device [▶▶ 48].

After maintenance

1. Carry out safety checks in accordance with chapter Safety Checks and Maintenance Intervals [▶▶ 50].
2. Put the system into operation in accordance with chapter Start Up [▶▶ 33] and check for leaks in accordance with chapter Product Pressure Test [▶▶ 69].
3. Carry out functional check in accordance with chapter Function Test after Repair Work [▶▶ 67].
4. Have the system checked for safe condition by a skilled person.
5. In accordance with DGUV regulation 100-500, chapters 2.29 and 2.36:
 - ▶ The liquid ejection devices should be checked by an expert (e.g., WAGNER service technician) for their safe working conditions as required and at least every 12 months.
 - ▶ For shut down devices, the examination can be suspended until the next start-up.

8.2.3 Safety Checks and Maintenance Intervals

For the safe operation of electrostatic manual coating systems for ignitable liquid coating products, intervals for periodical inspections are defined as follows:

Inspection point	Inspection interval	Remarks
Spray gun cleaning, spray gun flushing	Every day	Spray gun operating manual, see chapter Cleaning and maintenance [▶▶ 47]
Hoses, tubes, couplings	Every day	
Grounding measures	Weekly	Chapter Grounding the device [▶▶ 15], chapter Grounding [▶▶ 30]
Inspection for damage	Weekly	Chapter Cleaning and maintenance [▶▶ 47], chapter Troubleshooting and Rectification [▶▶ 52]
Locking of the technical ventilation with the electrostatic spraying equipment	Annually	Chapter Ventilation of the Spray Booth [▶▶ 29]

The above recommended intervals are maximum values and may be modified by the operator depending on the local and operational conditions and the contamination. Damaged devices must be decommissioned and repaired immediately.

8.2.4 Product Hoses, Pipes and Couplings

The service life of the complete hoses between product pressure generator and application device is reduced due to environmental influences even when handled correctly.

1. Check hoses, pipes, and couplings every day and replace if necessary.
2. Before every commissioning, check all connections for leaks.
3. Additionally, the operator must regularly check the complete hoses for wear and tear as well as for damage at intervals that he/she has set. Records of these checks must be kept.
4. Replace the complete hose if one of the following two periods is exceeded:
 - ▶ 6 years from the date of the hose crimping (see fitting embossing).
 - ▶ 10 years from the date of the hose imprinting.

Fitting embossing (if present)	Meaning
xxx bar	Pressure
yymm	Crimping date (year/month)
XX	Internal code
Hose imprinting *	Meaning
WAGNER	Name/manufacturer
yymm	Date of manufacture (year/month)
xxx bar (xx MPa) e.g. 270 bar (27 MPa)	Pressure
XX	Internal code
DNxx (e.g., DN10)	Nominal diameter

* = If available, possibly without imprint for low pressure!

9 TROUBLESHOOTING AND RECTIFICATION

9.1 FAULTS IN THE SYSTEM

Functional fault	Cause	Rectification
Insufficient product output	Nozzle too small.	Select larger nozzle (see chapter Accessories [►► 71]).
	Product pressure too low.	Increase product pressure.
	Filter of gun or pump blocked.	Clean or replace filter.
	Nozzle clogged.	Clean or replace nozzle.
Poor spray pattern	Atomizing air incorrectly adjusted.	Readjust air pressure regulator.
	Unfavorable nozzle size.	Select a different nozzle (see chapter Accessories [►► 71]).
	The product viscosity is too high.	Thin product in accordance with the spray product manufacturer's instructions.
	Product pressure too high/too low.	Adapt product pressure.
	Damaged nozzle.	Attach new nozzle.
Poor wrap-around	Poor grounding at object.	Check grounding of object or hanger with ohmmeter.
	Lacquer resistance too high/too low.	Check lacquer resistance (see chapter Processible Working Materials [►► 9]).
	Spraying pressure too high.	Adjust spraying pressure.
No wrap-around	No high voltage.	Switch on high voltage at the control unit. / Repair malfunction as explained in the control unit operating manual.
		Connect gun and gun cable/check for defect.
		Check lacquer resistance (see chapter Processible Working Materials [►► 9]).
	Seal in end piece defective.	Repair by WAGNER service department.
	Air-passages damp.	Clean and dry air passages.
Back-spray	Poor grounding at object.	Check grounding.
	Distance between spray gun and work piece too great.	Reduce distance between spray gun and work piece.
	High voltage set incorrectly (too high).	Adapt high voltage to product.
	Loosen the nozzle union nut for round jet method.	Tighten union nut by hand.
	Distance between spray gun and work piece too great.	Reduce distance between spray gun and work piece.
Valve rod leaks	Seals at the valve rod are damaged	Replace the seals (see chapter Repairs [►► 53]).
	Loose packing	Tighten.

10 REPAIRS

10.1 REPAIR PERSONNEL

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

The following hazards may arise during repair work:

- risk to health from inhaling solvent vapors
- use of unsuitable tools and aids

A skilled person must check to ensure that the device is in a reliable state after it is repaired. A function test should be performed.

10.2 REPAIR NOTES

DANGER

Incorrect maintenance/repair!

Danger to life and equipment damage.

- ▶ Only a WAGNER service center or a suitably 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:
 - ▶ Relieve the pressure from the spray gun, product hoses and all devices.
 - ▶ Secure the spray gun against actuation.
 - ▶ Switch off the energy and compressed air supply.
 - ▶ Disconnect the control unit from the mains.
- ▶ Observe the operating and service manual for all work.



Before repair work

- ▶ Flush and clean the system according to chapter Cleaning and flushing the device [▶▶ 48].

After repair work

1. Carry out safety checks in accordance with chapter Safety Checks and Maintenance Intervals [▶▶ 50].
2. Put the system into operation in accordance with chapter Start Up [▶▶ 33] and check for leaks in accordance with chapter Product Pressure Test [▶▶ 69].
3. Carry out functional check in accordance with chapter Function Test after Repair Work [▶▶ 67].
4. Have the system checked for safe condition by a skilled person.
5. In accordance with DGUV regulation 100-500, chapters 2.29 and 2.36:
 - ▶ The liquid ejection devices should be checked by an expert (e.g., WAGNER service technician) for their safe working conditions as required and at least every 12 months.
 - ▶ For shut down devices, the examination can be suspended until the next start-up.

10.3 ASSEMBLY AIDS

In chapter Spare Parts [►► 81] the order numbers for device spare parts can be found, as well as for wearing parts such as seals.

- Use torques, greases and glues in accordance with chapter Spare Parts [►► 81]. Spray gun in accordance with chapter Spray Gun [►► 54].

Brand notice:

The brands specified in this document are property of the respective owners. Loctite®, for example, is a registered brand of Henkel.

10.4 SPRAY GUN

Plastic parts

Gently handle all plastic parts.

10.4.1 Tools

For disassembling and assembling the spray gun, the following tools are required:

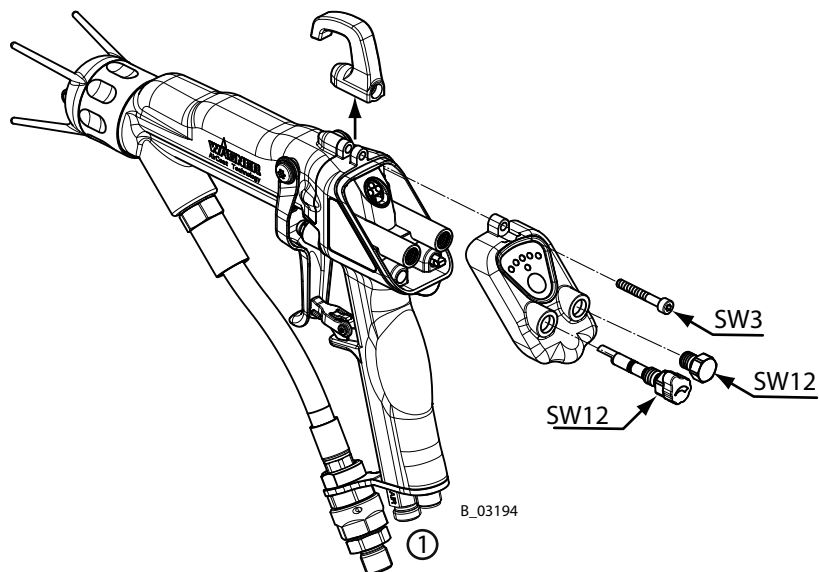
- Allen wrench, wrench size (SW) 2
- Allen wrench, wrench size (SW) 3
- Allen wrench, wrench size (SW) 5
- Combination wrench, wrench size (SW) 19
- Combination wrench, wrench size (SW) 21
- Combination wrench, wrench size (SW) 22
- Combination wrench, wrench size (SW) 5
- Combination wrench, wrench size (SW) 6
- Combination wrench, wrench size (SW) 8
- Combination wrench, wrench size (SW) 11
- Combination wrench, wrench size (SW) 12
- Combination wrench, wrench size (SW) 14
- Ring wrench, wrench size (SW) 9
- Ring wrench, wrench size (SW) 11
- Torx® wrench 20
- Torx® wrench 25
- Screwdriver No. 1
- Slide gauge
- Valve needle assembly tool, order no. 2309368
- Clamping screw assembly tool, order no. 2325263

Only as required:

- Handle seal assembly tool (order no. 2342334, not included in scope of delivery)

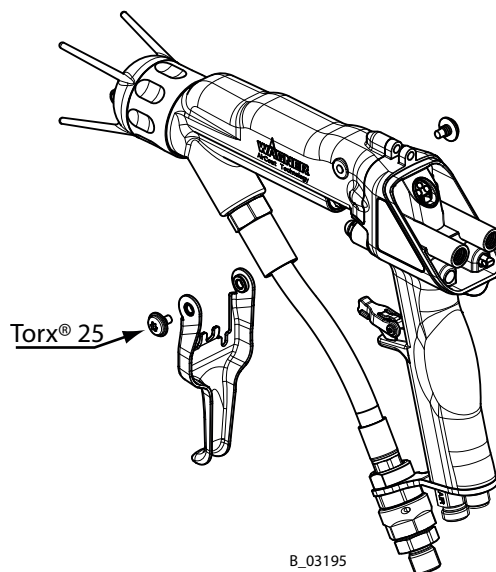
10.4.2 Dismantling the Spray Gun

1

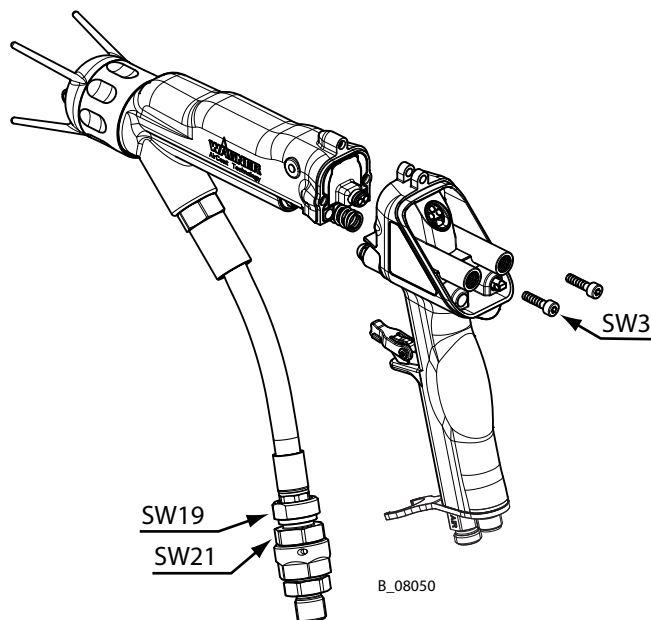


- | | |
|---|---|
| 1 | Air hose:
When unscrewing the air hose, a second open-end/ring wrench must be used for counterholding. |
|---|---|

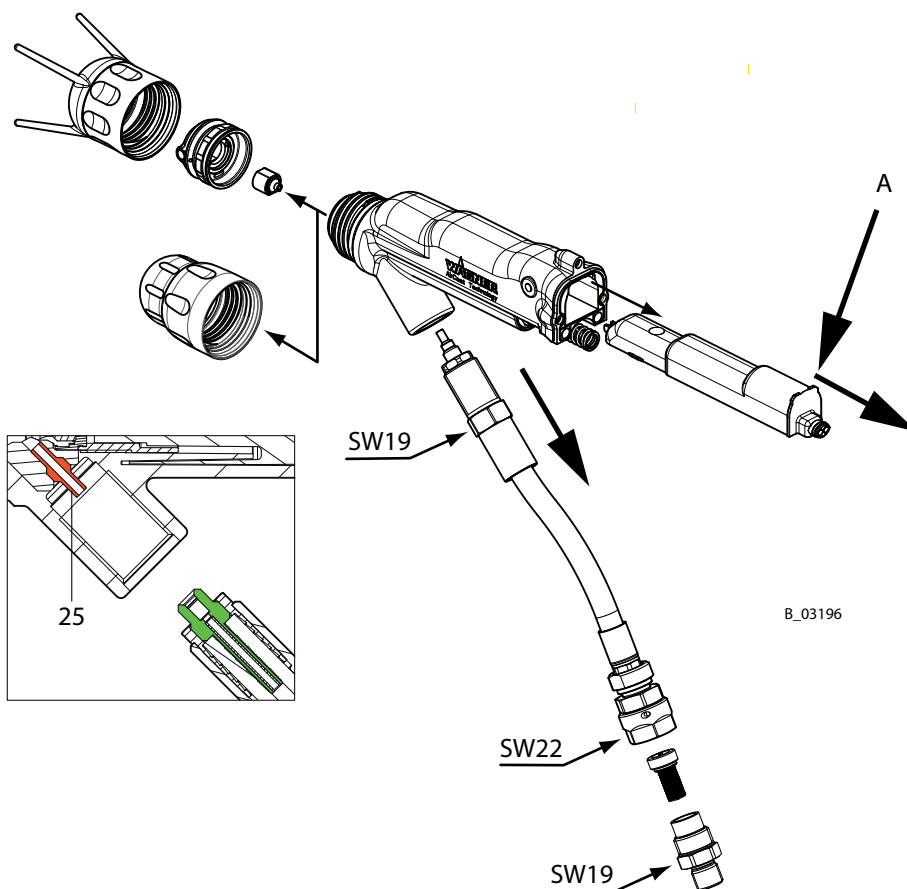
2



3



4



A Carefully release the cascade without pliers

Product hose:

- Do not tilt, but pull it straight out in the direction indicated by the arrow. At the same time, perform slight rotational movements.

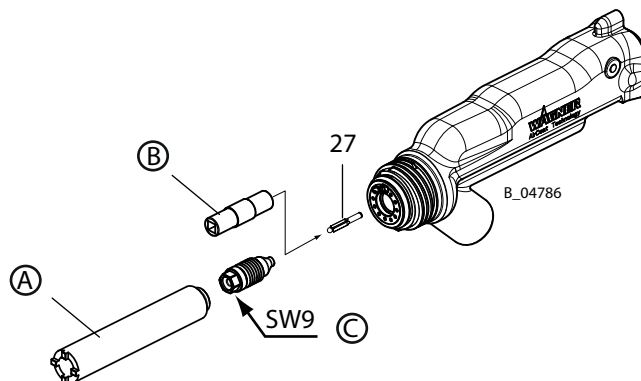
Fitting (25):

If the fitting (25) does not come out with the product hose, it must be removed from the gun adapter as follows:

1. Screw in the wood screw (ø 3 mm; 0.12 inch, length 40 mm; 1.6 inches) into the fitting (25), max. 6 mm deep.
2. Pull out straight with suitable pliers. Possibly rotate clockwise simultaneously.
3. Thereafter, the fitting must be replaced.

If the fitting is broken in the gun adapter, the WAGNER service department must be contacted.

5

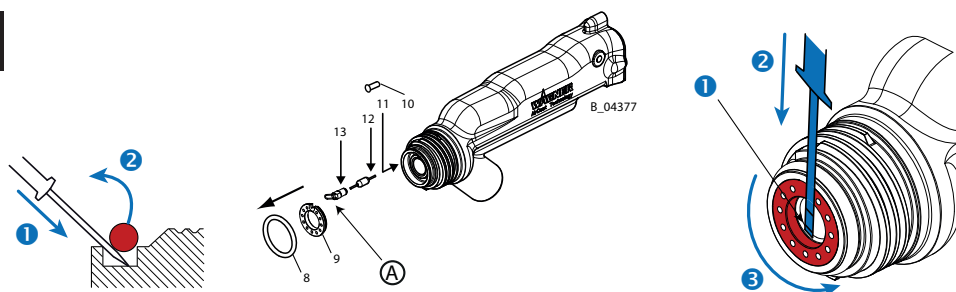


A	Tensioning screw assembly tool, order number 2325263	C	Valve housing: Use an assembly tool or socket/ring wrench (not a combination wrench)
B	Valve needle assembly tool, order no. 2309368		

Valve tip (27):

- Loosen valve tip by hand using the valve needle assembly tool (order no. 2309368).

6



A	Do not pull out by contact wire.
---	----------------------------------

The gold contact sleeve (10) remains either in the adapter (11) or rests on the resistor (12). Do not lose them!
(The other gold contact sleeve is in the contacting [13]).

O-ring (8)

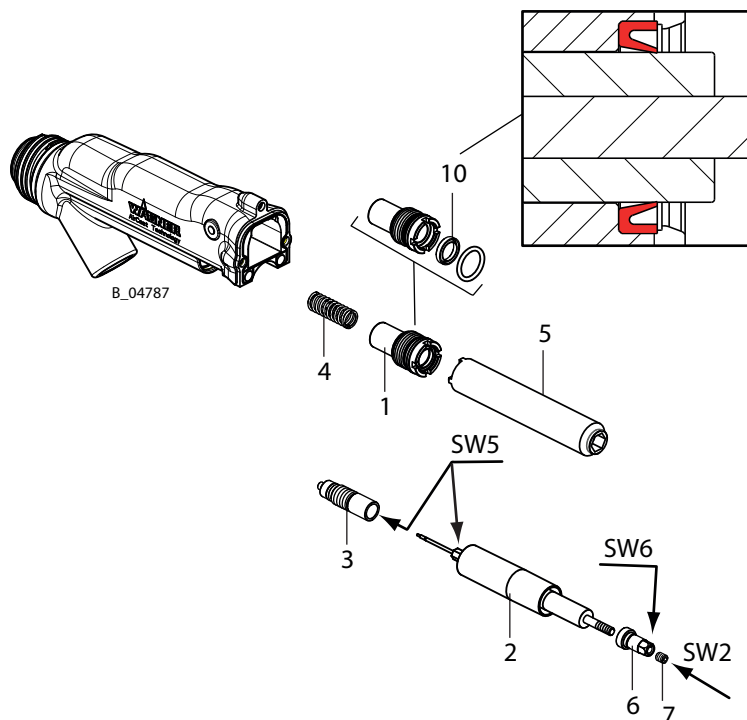
1. Use screwdriver no. 1 to press under the O-ring.
2. Push up the O-ring and remove it.

Air manifold ring (9)

1. Locate the start of the thread for recessed internal threading.

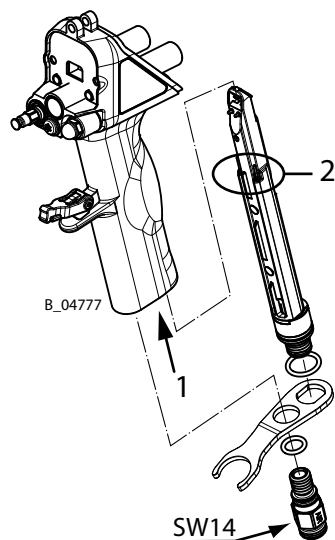
2. Push under the air distribution ring directly in front of the start of the thread using screwdriver no. 1.
3. As soon as the ring disengages, carefully loosen it on all sides.

7



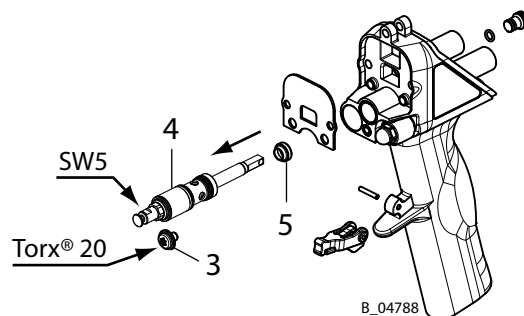
1. Remove pressure spring (4).
2. Loosen clamping screw (1) with assembly tool (5).
3. Unscrew valve rod unit (2, 6, 7). The packing (3) is also unscrewed and removed.
4. **Only as necessary:** Remove rod seal (10). Do not damage the housing in the process.

8



Two gold contact sleeves either remain in the handle (1) or are seated on the two gold pins (2). Do not lose them!

9



1. Loosen the fillister head screw (3).
2. Pull the air valve (4) out off the drilled hole. Do not turn! Do not damage the cylindrical surfaces. Ideally, press on the tappet from behind using a transversely held screwdriver.
3. **Only as necessary:** Press out seal (5) using a handle seal assembly tool (order no. 2342334, not included in scope of delivery).

10.4.3 Cleaning the Parts after Disassembly

Please note:

1. All reusable parts (except for the parts conducting high voltage such as adapter etc.) should be cleaned thoroughly using a suitable cleaning agent.
2. The adapter, plug, inside handle and all dismantled parts must be clean and dry after cleaning. Care should be taken that these parts remain free of solvents, grease or sweat from the hands (salt water). Perform cleaning and mounting tasks wearing gloves.
3. Spare parts may have safety-relevant properties. Only repair and replace parts that are listed in the spare parts chapter and that are assigned to the device.
4. Defective parts, O-rings and seal sets must always be replaced.

⚠ WARNING

Incompatibility of cleaning agent and working medium!

Risk of explosion and danger of poisoning by toxic gases.

- ▶ Examine the compatibility of the cleaning agents and working media on the basis of the safety data sheets.



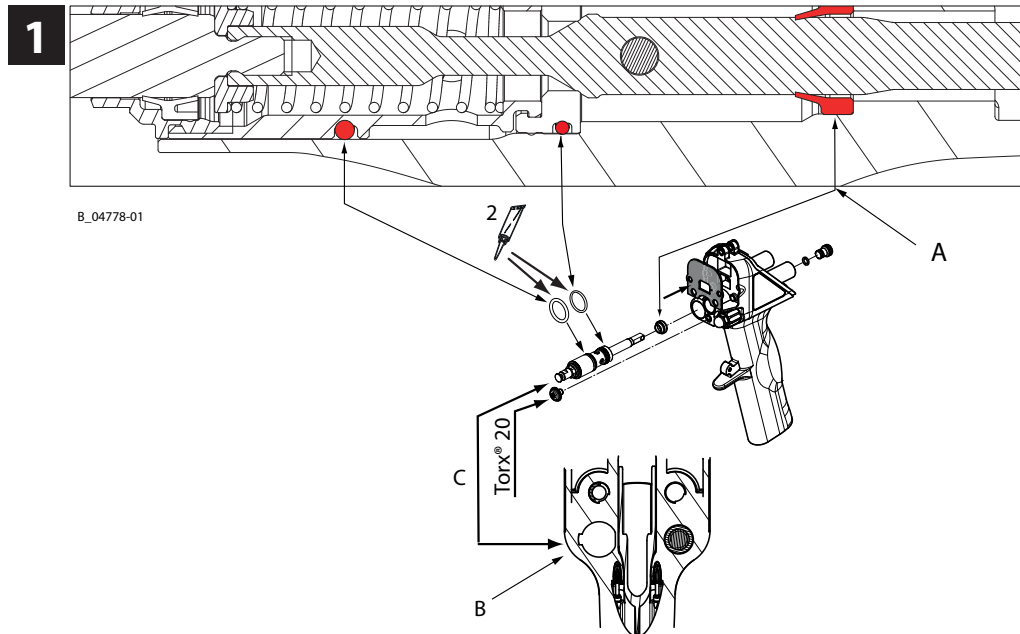
In chapter Spare Parts [▶▶ 81] the order numbers for gun spare parts can be found as well as for wearing parts such as seals.

10.4.4 Assembling the Spray Gun

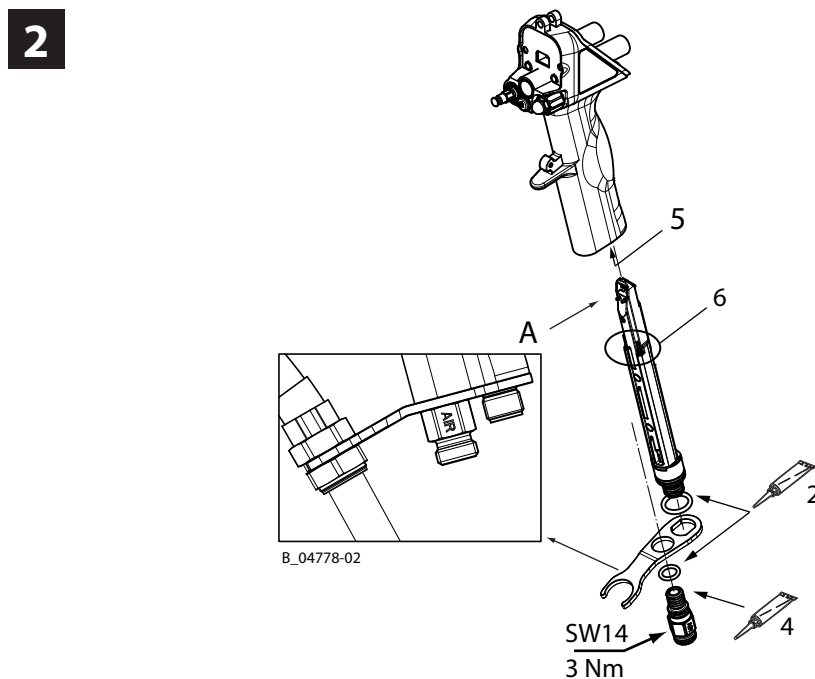
Assembly aids

Pos	Order no.	Description
2 *	9992698	Vaseline white, PHHV II
4	9992511	Loctite® 243
5	9992609	Anti-seize paste

* Use Vaseline sparingly



A	Only as necessary (if the seal was removed): Press in seal using a handle seal assembly tool (order no. 2342334, not included in scope of delivery).	C	Ensure the correct installation position!
B	Hold the recess for the air valve pin so that the pin points to the left.		

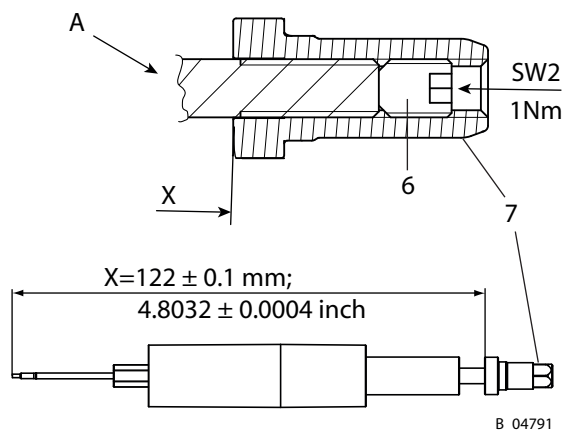


A	Ensure the correct installation position!
---	---

Gold contact sleeves

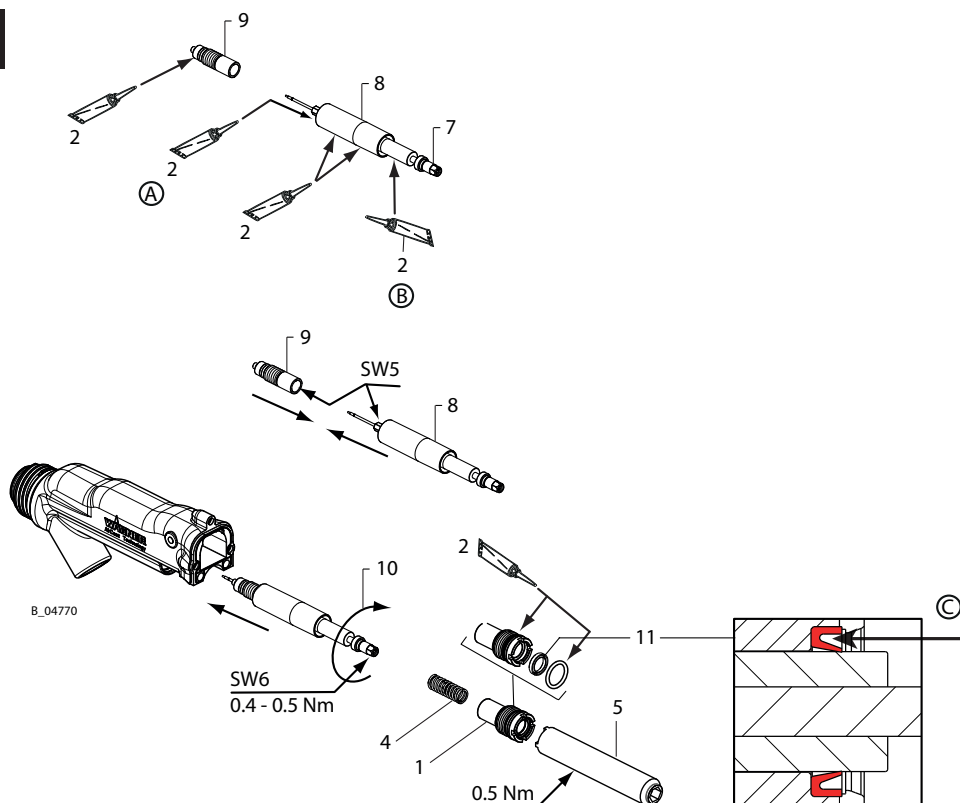
- Check whether the two gold contact sleeves are in the handle (5). Otherwise, insert the sleeves onto the two gold pins of the plug (6). Slide plug into handle.

3



A	Valve rod unit: Set length adjusting measure X with withdrawal nut (7) and then fasten the threaded pin (6) using a size 2 Allen wrench.
---	---

4

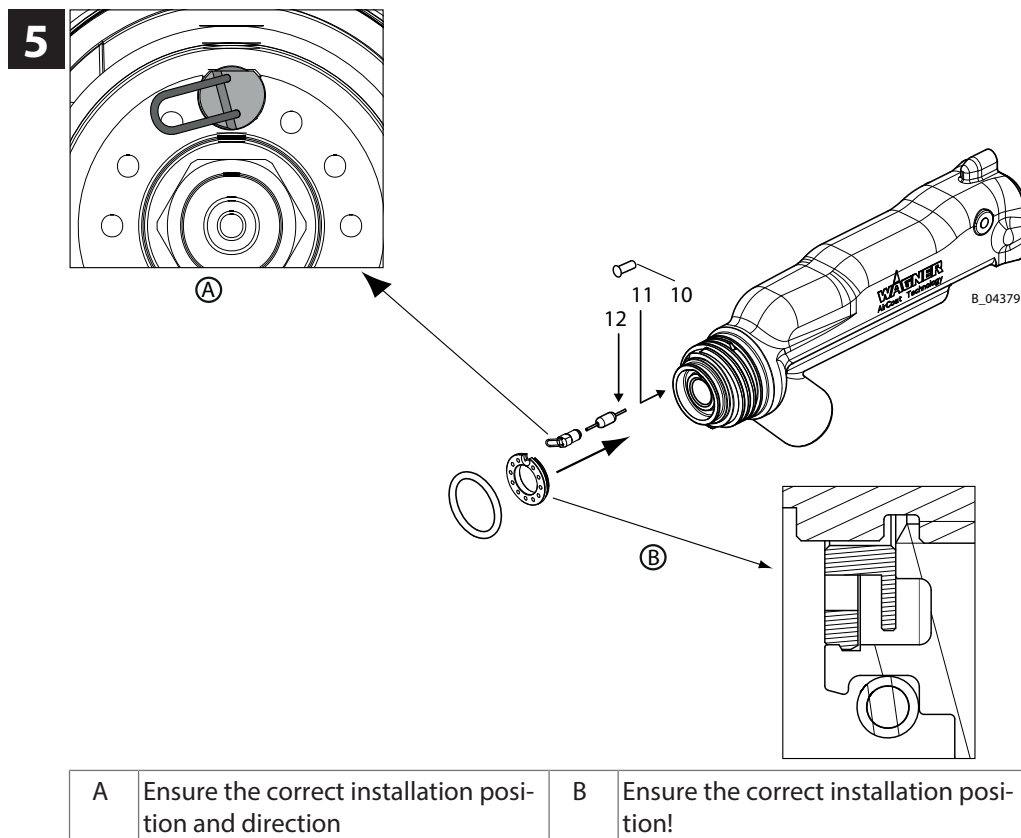


A	Coat the hollow section with a brush. Note: Do not coat the pin and hexagon.	C	Only as required (if the rod seal was removed): Press in rod seal (11). In the process, press only on the lowest area of the rod seal.
B	Sparingly		

Wear gloves!

✓ The outside thread of the packing (9) must be free of lacquer.

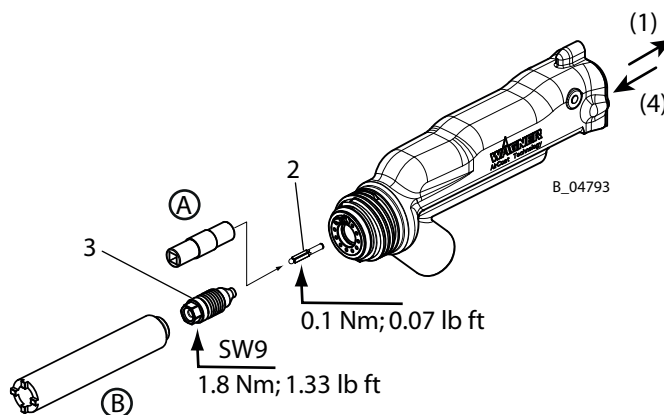
1. Valve rod unit (8) and packing (9):
 - ▶ grease,
 - ▶ slide together,
 - ▶ screw together (10).
2. Grease clamping screw (1) and mount using assembly tool (5).
3. Insert spring (4).



Gold contact sleeve (10)

1. Check whether the gold contact sleeve is located in the end piece (11).
2. Otherwise, insert the sleeve onto the resistor (12).

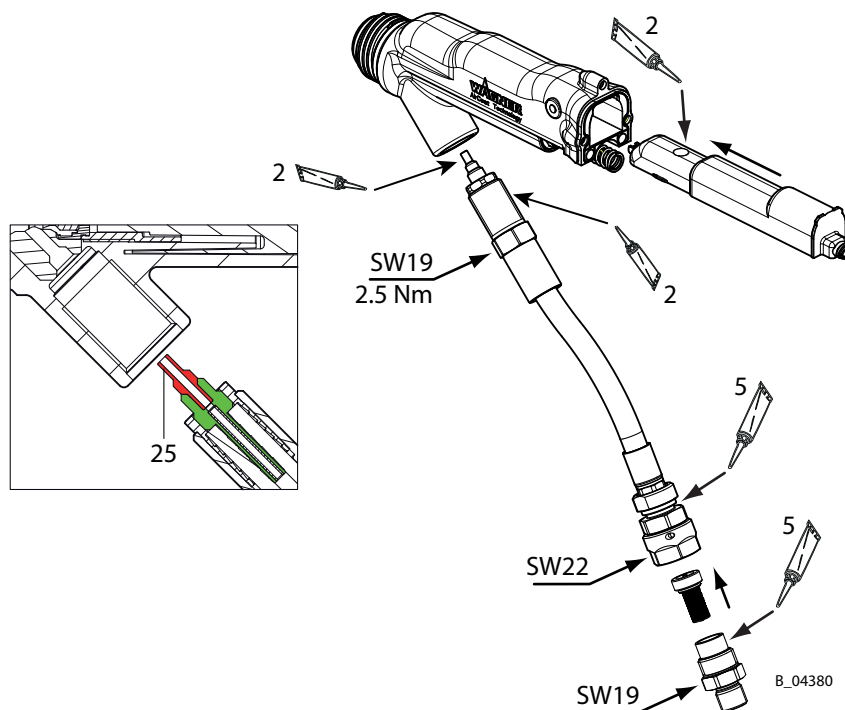
6



A	Valve needle assembly tool, order no. 2309368	B	Tensioning screw assembly tool, order number 2325263
---	--	---	---

1. Move the valve rod to the rear position so that the sealing area does not become scratched (1).
2. Slightly tighten AC valve tip (2) by hand (3 fingers) using an assembly tool.
3. Use a socket or ring wrench (not a combination wrench) to tighten the valve housing (3).
4. Slide the valve rod to the forward position (on the valve seat) (4).

7

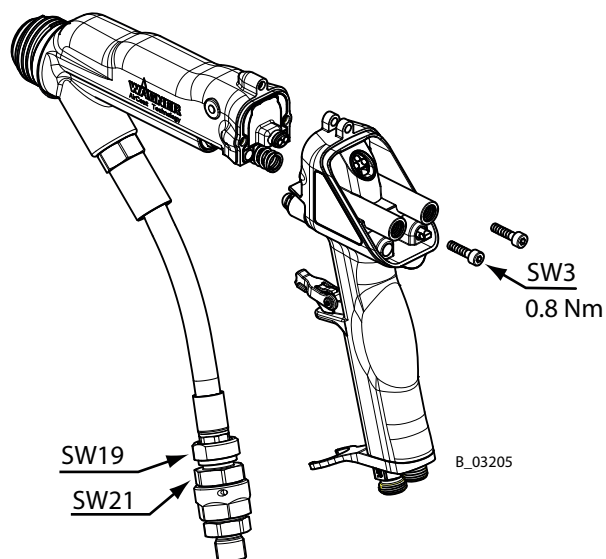


- Clean and degrease the inside of the adapter and the outside of the cascade, then grease the cascade surface with Vaseline.

Fitting (25)

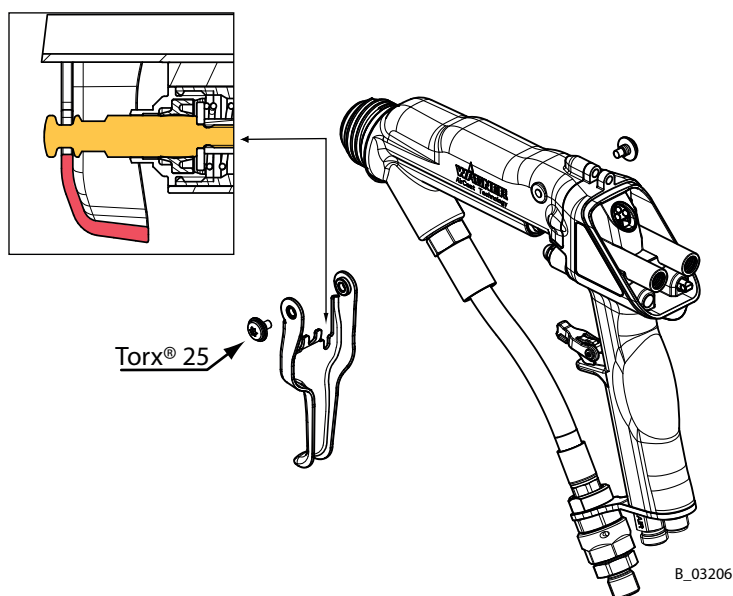
- ✓ Before assembling the product hose, check that no fitting (25) is in the gun adapter!
- Check the fitting for damage and replace if necessary (order no. 2338853).

8

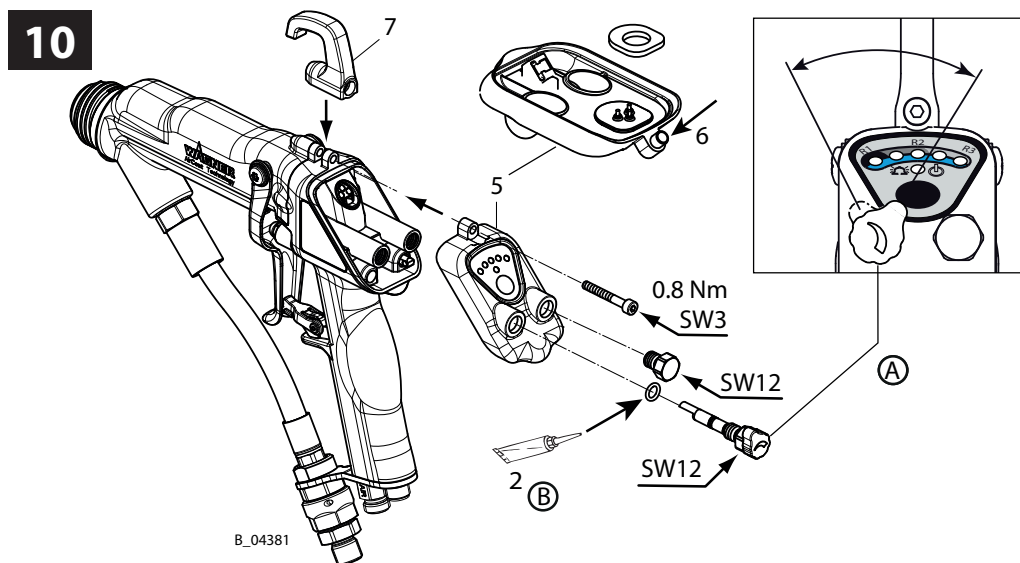


1. Ensure that the spring is inserted in the adapter.
2. Ensure that the flat gasket is inserted in the handle.

9



1. Push the trigger upward into the air valve piston.
 - ▶ The recess in the trigger must engage correctly in the indentation of the piston.



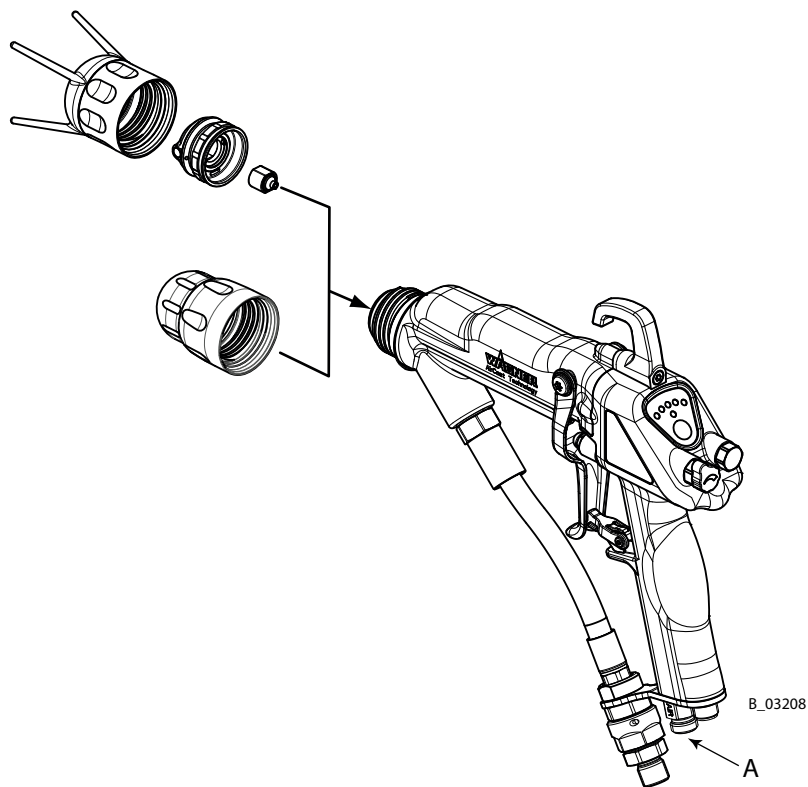
A	Ensure the correct installation position!	B	Sparingly
---	---	---	-----------

Cover (5)

The cover must be handled carefully and not be twisted or distorted in any way.

1. Press metal sleeve (6) back in cover (5) (e.g., press on table). In the process, only exert counter pressure on the sleeve bracket and not on the entire cover.
2. Position cover straight and level, and carefully press in. Use only minimal force, gently rocking from side to side if necessary.
3. Ensure that the cover is flush mounted on all sides.
4. Press back on metal sleeve for a flush fit (e.g., press on table).
5. Position bracket (7).
6. Mount screw, plug, and air regulation.

11



A	Air hose: When screwing on the air hose, a second open-end/ring wrench must be used for counterholding.
---	--

Flat jet nozzle

Assembly, see chapter Accessories Spare Parts Lists [►► 87]

Diverse nozzle sizes, see chapter Flat jet nozzles [►► 71].

Round jet nozzle

Assembly, see chapter Accessories Spare Parts Lists [►► 87]

Diverse nozzle sizes, see chapter Round Jet Nozzles [►► 71]

11 FUNCTION TEST AFTER REPAIR WORK

After all repairs, the device must be checked for safe condition before recommissioning. The necessary scope of inspection and testing depends on the repair carried out and must be documented by the repair personnel.

11.1 CHECK HIGH VOLTAGE

Required test equipment:

VM 500, VM 5000 or EPG 5000 control unit und HV 200 high-voltage tester.

High-voltage measurement on spraying gun.

Connect gun cable to control unit. Take the spray gun in your hand and hold it in an empty space. Switch on control unit and actuate trigger.

The high voltage should be 60 to 65 kV in dry ambient air. The value can be checked with the display on the control unit (VM 5000, EPG 5000).

Notes:

- The gun must be clean and dry and must not have any paint or cleaning agent residues.
- In the case of ambient air with a high air humidity, the measured value can reduce to 50 to 55 kV.

High-voltage measurement with high-voltage tester

Place the ball of the high-voltage tester on the gun electrode and turn on the high voltage. The measured value should be 70 to 80 kV.

Notes:

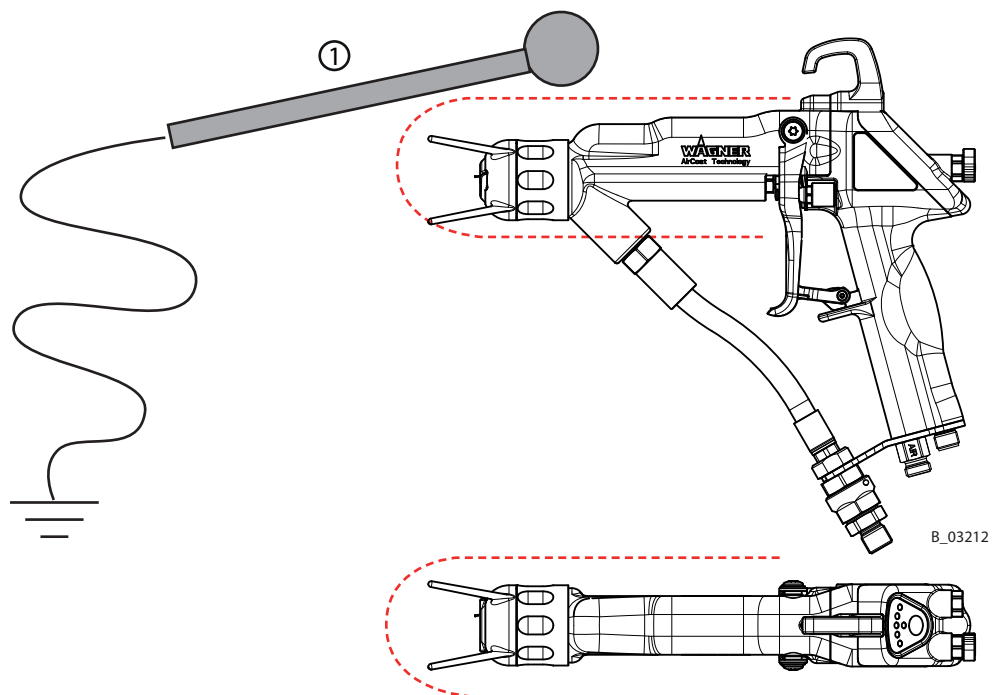
- When measuring the high voltage the gun and the measuring device should be held at arms length as far from the body as possible.
- There should be no chargeable objects within a radius of 1 m; 3.28 ft of the place where the measurements are taken.
- The placing of the measuring ball of the high-voltage measuring device reduces the spraying of the high-voltage electrode. As a result, the high-voltage value increases compared to spraying in an empty space.

Disruptive discharge test

Check to see if the gun is grounded using the grounding rod. No sparks should form.

Notes:

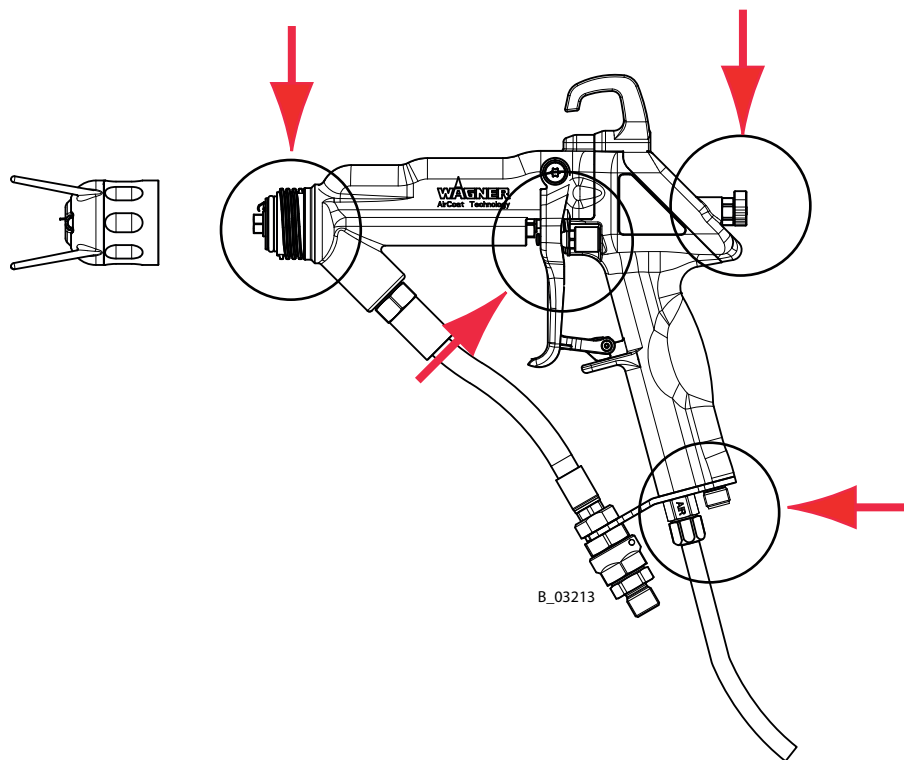
- In the vicinity of the electrode, harmless corona discharges can occur.



- | | |
|---|---------------------------------|
| 1 | Grounding rod, order no. 175519 |
|---|---------------------------------|

11.2 FUNCTION TESTS FOR SPRAY GUN

11.2.1 Air Tests



1. Connect test or air hose to spray gun.
2. The following air tests are to be carried out twice each:

- ▶ at 0.1 MPa; 1 bar; 14.5 psi
- ▶ at 0.8 MPa; 8 bar; 116 psi

Checking the air valve

- ▶ The air valve must switch on and off correctly.

Air seal

- ▶ Without activating the trigger, test for air seal at the points marked in the illustration.

11.2.2 Product Pressure Test

Connect high-pressure hose to the spray gun.

Test the seal of the spray gun with suitable medium (e.g., flushing agent or Marcol 52) and a maximum pressure of 25 MPa; 250 bar; 3626 psi. Increase the pressure gradually while doing so.

Observe the following gun components:

- Product connection
- Nozzle body
- Product valve (no post-spraying)

DANGER

Exploding gas / air mixture!

Danger to life from flying parts and burns.

- ▶ Never spray into a closed tank.
- ▶ Ground the tank.



11.2.3 Check Spray Pattern

Check spray pattern in accordance with chapter Checking the Spray Pattern (Without_Electrostatics) [▶▶ 37].

12 DISPOSAL

12.1 DEVICE

When the devices must be scrapped, please differentiate the disposal of the waste materials.

The following materials have been used:

- Stainless steel
- Carbide
- Aluminium
- Elastomers
- Plastics

! NOTICE

Do not dispose of used electrical equipment with household refuse!

This product may not be disposed of with the household refuse, but must be recycled in an environmentally correct manner.

- ▶ WAGNER or one of our dealers will take back your used WAGNER electric or electronic equipment and will dispose of it for you in an environmentally-friendly way.
- ▶ Please contact one of our service points, one of our representatives or us directly.



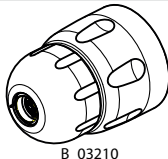
12.2 CONSUMABLE PRODUCTS

Consumable products (lacquers, adhesives, flushing and cleaning agents) must be disposed of in accordance with all applicable legal requirements.

13 ACCESSORIES

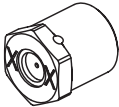
13.1 ROUND JET NOZZLES

13.1.1 ACR 5000 Round Jet Nozzle Attachment

Order no.	Designation	
<u>2309883</u>	ACR 5000 round jet nozzle attachment (with nozzle wrench, without AC round jet nozzle insert)	 B_03210

13.1.2 AirCoat Round Jet Nozzle Inserts

The round jet nozzles are especially suitable for spraying delicate parts, tubes, profiles and complex work pieces.

Order no.	Marking	Jet width mm; inch	Recommended gun filter	
<u>132720</u>	11	approx. 250; 10	yellow 200 mesh	 B_00027
<u>132721</u>	12	approx. 250; 10		
<u>132722</u>	13	approx. 250; 10		
<u>132723</u>	14	approx. 250; 10		
132724 *	15	approx. 250; 10		
<u>132725</u>	16	approx. 250; 10	black 100 mesh	
<u>132726</u>	17	approx. 250; 10		
<u>132727</u>	18	approx. 250; 10		
<u>132728</u>	19	approx. 250; 10		
<u>132729</u>	20	approx. 250; 10	white 60 mesh	
<u>132730</u>	21	approx. 250; 10		
132731	22	approx. 250; 10		

* Standard version

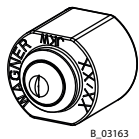
Jet width in mm; inches at a distance of 30 cm; 11.8 inches from the object and at a pressure of 10 MPa; 100 bar; 1450 psi.

13.2 FLAT JET NOZZLES

13.2.1 ACF 5000 Air Caps (Flat Jet)

Order no.	Designation	
<u>2309882</u>	Air cap, ACF 5000 - LV suitable for low viscosity products (marked red).	 B_03454
<u>2314203</u>	Air cap, ACF 5000 - HV suitable for high viscosity products (marked blue).	 B_03209

13.2.2 ACF 5000 AirCoat Flat Jet Nozzles



Order no.	Marking	Drilled hole Ø mm; inch	Spray angle	Application
395107	07/10	0.18; 0.007	10°	Natural lacquer
<u>395207</u>	07/20		20°	
395407	07/40		40°	
395109	09/10	0.23; 0.009	10°	Clear lacquer Oils
<u>395209</u>	09/20		20°	
<u>395309</u>	09/30		30°	
<u>395409</u>	09/40		40°	
<u>395509</u>	09/50		50°	
<u>395609</u>	09/60		60°	
<u>395111</u>	11/10	0.28; 0.011	10°	Synthetic resin lacquer PVC lacquer
<u>395211</u>	11/20		20°	
<u>395311</u>	11/30		30°	
<u>395411</u>	11/40		40°	
<u>395511</u>	11/50		50°	
<u>395611</u>	11/60		60°	
<u>395811</u>	11/80		80°	
395113	13/10	0.33; 0.013	10°	Lacquers Base coat Primer Filler
<u>395213</u>	13/20		20°	
<u>395313</u>	13/30		30°	
<u>395413</u>	13/40		40°	
<u>395513</u>	13/50		50°	
<u>395613</u>	13/60		60°	
<u>395813</u>	13/80		80°	
<u>395115</u>	15/10	0.38; 0.015	10°	Filler Rust proofing paints
<u>395215</u>	15/20		20°	
<u>395315</u>	15/30		30°	
<u>395415</u>	15/40		40°	
<u>395515</u>	15/50		50°	
<u>395615</u>	15/60		60°	
<u>395815</u>	15/80		80°	
<u>395217</u>	17/20	0.43; 0.017	20°	Rust proofing paints Latex paints
<u>395317</u>	17/30		30°	
<u>395417</u>	17/40		40°	
<u>395517</u>	17/50		50°	
<u>395617</u>	17/60		60°	
<u>395817</u>	17/80		80°	

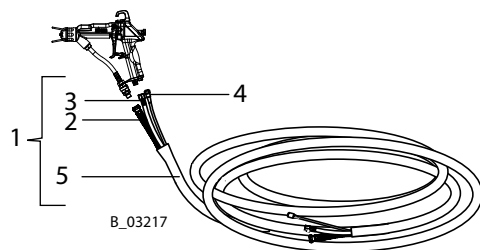
Order no.	Marking	Drilled hole Ø mm; inch	Spray angle	Application
<u>395219</u>	19/20	0.48; 0.019	20°	Rust proofing paints Latex paints
<u>395319</u>	19/30		30°	
<u>395419</u>	19/40		40°	
<u>395519</u>	19/50		50°	
<u>395619</u>	19/60		60°	
<u>395819</u>	19/80		80°	
<u>395221</u>	21/20	0.53; 0.021	20°	Mica paints
<u>395421</u>	21/40		40°	Zinc rich paints
<u>395521</u>	21/50		50°	Rust proofing paints
<u>395621</u>	21/60		60°	Glue paints
<u>395821</u>	21/80		80°	
<u>395423</u>	23/40	0.58; 0.023	40°	
<u>395623</u>	23/60		60°	
<u>395823</u>	23/80		80°	
<u>395425</u>	25/40	0.64; 0.025	40°	
<u>395625</u>	25/60		60°	
<u>395825</u>	25/80		80°	
<u>395427</u>	27/40	0.69; 0.027	40°	
<u>395627</u>	27/60		60°	
<u>395827</u>	27/80		80°	
<u>395429</u>	29/40	0.75; 0.029	40°	
<u>395629</u>	29/60		60°	
<u>395829</u>	29/80		80°	
<u>395431</u>	31/40	0.79; 0.031	40°	
<u>395631</u>	31/60		60°	
<u>395831</u>	31/80		80°	
<u>395435</u>	35/40	0.90; 0.035	40°	
<u>395635</u>	35/60		60°	
<u>395835</u>	35/80		80°	

13.3 FILTER

Order no.	Designation	
<u>3204604</u>	Edge filter, 60 mesh (white)	 B_00019
<u>3204605</u>	Edge filter, 100 mesh (black)	
<u>9999002</u>	Edge filter, 200 mesh (yellow)	

13.4 HOSES AND CABLES

13.4.1 Standard Hose Sets and Components



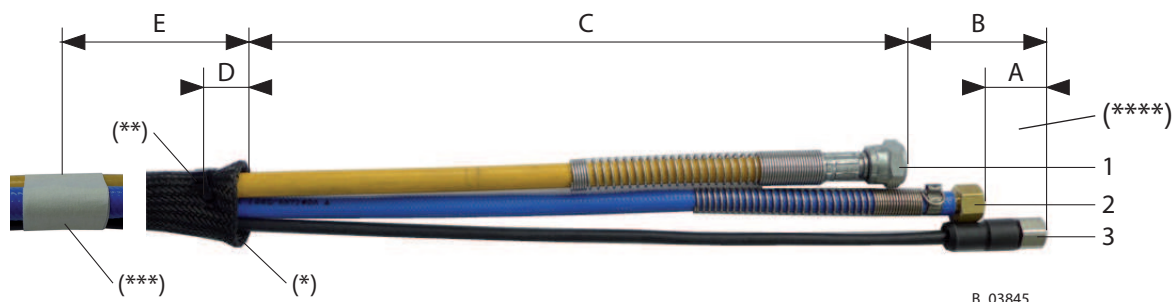
Product hose			
Nominal pressure		25 MPa; 250 bar; 3626 psi	
Inside diameter		4 mm; 0.16 inch	
Inner hose material		PA	
7.5 m; 24.6 ft			
Pos	Stk	Order no.	Designation
1	1	2339171	Hose set, GM 5000EAC (7.5 m; 24.6 ft)
Consists of:			
2	1	9984573	High-pressure hose, DN4-PN270-1/4"NPS-7.5 m-PA
3	1	2339152	Air hose, complete DN6.5 (8 m; 26.2 ft)
4	1	2339157	Gun cable, GM 5000E (10 m; 32.8 ft)
5	8 m	3676437	Protective hose mesh, PP30 (8 m; 26.2 ft)
10 m; 32.8 ft			
Pos	Stk	Order no.	Designation
1	1	2339172	Hose set, GM 5000EAC (10 m; 32.8 ft)
Consists of:			
2	1	2302374	High-pressure hose, DN4-PN270-1/4"NPS-10.0 m-PA
3	1	2339153	Air hose, complete DN6.5 (10.5 m; 34.4 ft)
4	1	2339158	Gun cable, GM 5000E (15 m; 49.2 ft)
5	10.5 m	3676437	Protective hose mesh, PP30 (10.5 m; 34.4 ft)
15 m; 49.2 ft			
Pos	Stk	Order no.	Designation
1	1	2339173	Hose set, GM 5000EAC (15 m; 49.2 ft)
Consists of:			
2	1	9984573-15	High-pressure hose, DN4-PN270-1/4"NPS-15.0 m-PA
3	1	2339154	Air hose, complete DN6.5 (15.5 m; 50.8 ft)
4	1	2339159	Gun cable, GM 5000E (20 m; 65.6 ft)
5	15.5 m	3676437	Protective hose mesh, PP30 (15.5 m; 50.8 ft)

20 m; 65.6 ft			
Pos	Stk	Order no.	Designation
1	1	<u>2339174</u>	Hose set, GM 5000EA (20 m; 65.6 ft)
Consists of:			
2	1	<u>9984573-20</u>	Low-pressure hose, DN8-PN17-G1/4"-20 m-PA
3	1	<u>2339155</u>	Air hose, DN 8, complete (20.5 m; 67.2 ft)
4	1	<u>2339160</u>	Gun cable, GM 5000E (25 m; 82 ft)
5	20.5 m	<u>3676437</u>	Protective hose mesh, PP30 (20.5 m; 67.2 ft)

In the large WAGNER accessories catalogue for wet coating you will also find reduction and material fittings.

Hose colors		
Product hose	Yellow	
Air hose	Blue	
Dimensions		
	Inside diameter	Nominal pressure
Air hose	6.5 mm; 0.26 inch	
Product hose	4 mm; 0.16 inch	25 MPa; 250 bar; 3626 psi

Material of product hose: PA



1	Product hose	2	Air hose
3	Electrical cable		

Order no.	GM 5000EAC hose set	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]
<u>2339171</u>	7.5 m; 24.6 ft	29±2	65±2	300±10	20±10	1500 ⁺¹⁰⁰
<u>2339172</u>	10 m; 32.8 ft	29±2	65±2	300±10	20±10	1500 ⁺¹⁰⁰
<u>2339173</u>	15 m; 49.2 ft	29±2	65±2	300±10	20±10	1500 ⁺¹⁰⁰
<u>2339174</u>	20 m; 65.6 ft	29±2	65±2	300±10	20±10	1500 ⁺¹⁰⁰

(*) Melt the hose ends at both sides (gun/pump) and turn approx. 5 cm of each hose end to the inside.

(**) Fix the protective hose with cable ties on both sides only once at the product hose (internally).

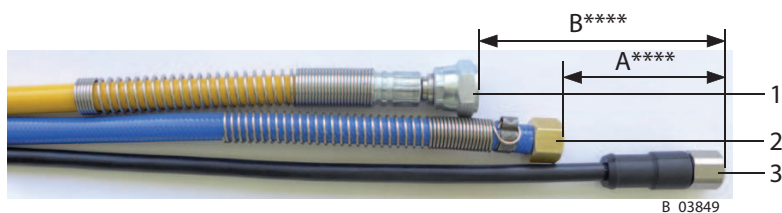
(***) Fix the hose set within the protective hose approx. once per meter by means of adhesive tape, starting at distance "E".

No cable ties are permitted except at the protective hose ends (see **)!

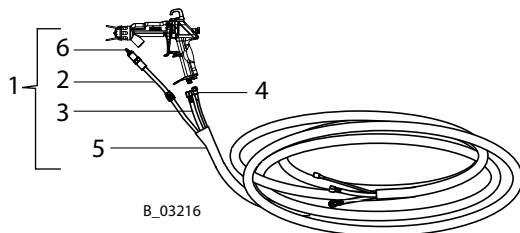
(****) If the air swivel joint (order no. 2324766) and/or the material swivel joint (order no. 2327060) is/are used, the hose set has to be adapted accordingly.

If the air swivel joint is used, dimension A becomes 60 mm!

If the material swivel joint is used, dimension B becomes 94 mm!



13.4.2 Hose Sets for Low-Resistance Products



Product hose			
Nominal pressure		25 MPa; 250 bar; 3626 psi	
Inside diameter		4 mm; 0.16 inch	
Inner hose material		FEP	
Pos. 6 Connecting fitting, AC		Order no. 2338853	
7.5 m; 24.6 ft			
Pos	Stk	Order no.	Designation
1	1	2339179	Hose set, GM 5000EAC (7.5 m; 24.6 ft), Low R
Consists of:			
2	1	2310468	High-pressure product hose, EAC, complete (7.5 m, 24.6 ft) Low R (including pos. 6)
3	1	2339152	Air hose, complete DN6.5 (8 m; 24.6 ft)
4	1	2339157	Gun cable, GM 5000E (10 m; 32.8 ft)
5	8 m	3676437	Protective hose mesh, PP30 (8 m; 26.2 ft)
10 m; 32.8 ft			
Pos	Stk	Order no.	Designation
1	1	2339180	Hose set, GM 5000EAC, complete (10 m; 32.8 ft) Low R
Consists of:			
2	1	2310469	High-pressure product hose, EAC, complete (10 m; 32.8 ft) Low R (including pos. 6)
3	1	2339153	Air hose, complete DN6.5 (10.5 m; 34.4 ft)
4	1	2339158	Gun cable, GM 5000E (15 m; 49.2 ft)
5	10.5 m	3676437	Protective hose mesh, PP30 (10.5 m; 34.4 ft)

15 m; 49.2 ft			
Pos	Stk	Order no.	Designation
1	1	<u>2339181</u>	Hose set, GM 5000EAC (15 m; 49.2 ft), Low R
Consists of:			
2	1	<u>2310470</u>	Product hose, EA, complete (15 m) Low R
3	1	<u>2339154</u>	Air hose, complete DN8 (15.5 m; 50.8 ft)
4	1	<u>2339159</u>	Gun cable, GM 5000E (20 m; 65.6 ft)
5	15.5 m	<u>3676437</u>	Protective hose mesh, PP30 (15.5 m; 50.8 ft)

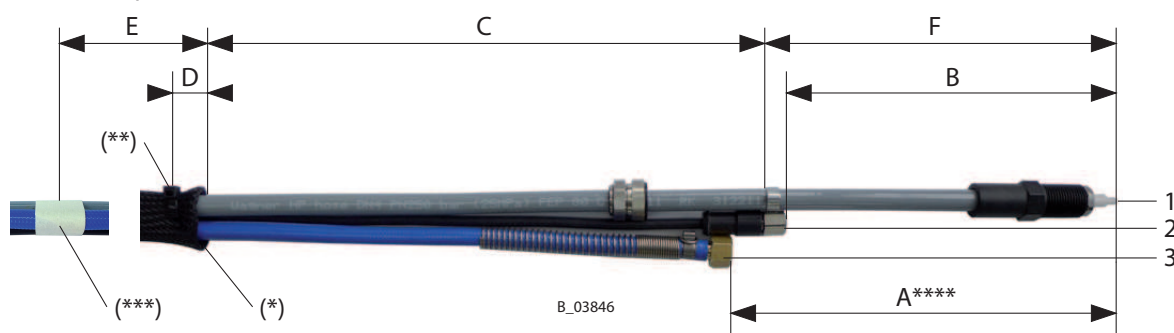
20 m; 65.6 ft			
Pos	Stk	Order no.	Designation
1	1	<u>2339182</u>	Hose set, GM 5000EAC (20 m; 65.6 ft), Low R
Consists of:			
2	1	<u>2310471</u>	High-pressure product hose, EAC, complete (20 m; 65.6 ft) Low R (including pos. 6)
3	1	<u>2339155</u>	Air hose, complete DN6.5 (20.5 m; 67.2 ft)
4	1	<u>2339160</u>	Gun cable, GM 5000E (25 m; 82 ft)
5	20.5 m	<u>3676437</u>	Protective hose mesh, PP30 (20.5 m; 67.2 ft)

In the large WAGNER accessories catalogue for wet coating you will also find reduction and material fittings.

Hose colors	
Product hose	Gray
Air hose	Blue

Dimensions		
	Inside diameter	Nominal pressure
Air hose	6.5 mm; 0.26 inch	
Product hose	4 mm; 0.16 inch	25 MPa; 250 bar; 3626 psi

Material of product hose: FEP



1	Product hose	2	Air hose
3	Electrical cable		

Order no.	GM 5000EAC hose set	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]
<u>2339179</u>	7.5 m; 24.6 ft, Low R	206±2	177±2	300±10	20±10	1500 ⁺¹⁰⁰	188±1
<u>2339180</u>	10 m; 32.8 ft, Low R	206±2	177±2	300±10	20±10	1500 ⁺¹⁰⁰	188±1
<u>2339181</u>	15 m; 49.2 ft, Low R	206±2	177±2	300±10	20±10	1500 ⁺¹⁰⁰	188±1
<u>2339182</u>	20 m; 65.6 ft, Low R	206±2	177±2	300±10	20±10	1500 ⁺¹⁰⁰	188±1

(*) Melt the hose ends at both sides (gun/pump) and turn approx. 5 cm of each hose end to the inside.

(**) Fix the protective hose with cable ties on both sides only once at the product hose (internally).

(***) Fix the hose set within the protective hose approx. once per meter by means of adhesive tape, starting at distance "E".

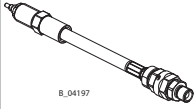
No cable ties are permitted except at the protective hose ends (see **).

(****) If the air swivel joint (order no. 2324766) is used, the hose set has to be adapted accordingly.

If the air swivel joint is used, dimension A becomes 237 mm!



13.4.3 Product Hose, 1.5 mm

Order no.	Designation	
<u>2352607</u>	Product hose set, AC, 1.5 mm; 0.06 inch, complete	

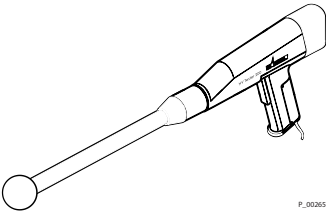
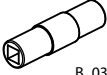
13.4.4 Gun Cables and Gun Cable Extensions

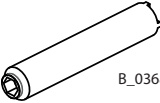
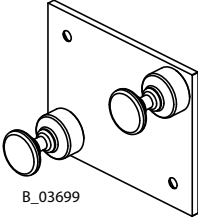
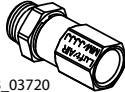
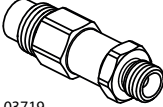
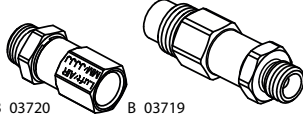
GM 5000E gun cable						
Length	10 m; 32.8 ft	15 m; 49.2 ft	20 m; 65.6 ft	25 m; 82.0 ft	32 m; 105 ft	62 m; 203 ft
Order no.	<u>2339157</u>	<u>2339158</u>	<u>2339159</u>	<u>2339160</u>	<u>2344995</u>	<u>2344996</u>
GM 5000E extension cable						
Length	0.5 m; 1.6 ft	10 m; 32.8 ft	20 m; 65.6 ft			
Order no.	<u>2432286</u>	<u>2339161</u>	<u>2339162</u>			

Use a short extension cable of 0.5 m; 1.6 ft between the gun and the actual gun cable if there is a risk that the gun cable plug can be torn off. In the event of damage, replacing the short extension cable is easier than replacing the gun cable in the hose set.

Max. total length of 80 m; 262 ft (see chapter Gun Cables and Gun Cable Extensions [►► 33])

13.4.5 Miscellaneous

Order no.	Designation	
<u>2319653</u>	Gun protective cover	
<u>2476562</u>	Gun protective cover with window	
<u>259010</u>	High-voltage tester, HV 200 N	
<u>2326041</u>	Paint resistance meter	
<u>999080</u>	Wet film thickness gauge	
<u>50342</u>	Viscosity cup, DIN/4 (4 mm; 0.16 inch)	
<u>2309368</u>	Valve needle assembly tool	

Order no.	Designation	
<u>128901</u>	Nozzle wrench, ACR	 B_01971
<u>2325263</u>	Clamping screw assembly tool	 B_03681
<u>2326485</u>	Wall mount, GM 5000E (left/right)	 B_03699
<u>2324766</u>	Swivel joint air	 B_03720
<u>2327060</u>	Fitting SJM-GM5000EAC-1/4"NPS (swivel joint - product)	 B_03719
<u>2327061</u>	Swivel joint set, GM 5000EAC	 B_03720 B_03719

14 SPARE PARTS

DANGER

Incorrect maintenance/repair!

Danger to life and equipment damage.

- ▶ Only a WAGNER service center or a suitably 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:
 - ▶ Relieve the pressure from the spray gun, product hoses and all devices.
 - ▶ Secure the spray gun against actuation.
 - ▶ Switch off the energy and compressed air supply.
 - ▶ Disconnect the control unit from the mains.
- ▶ Observe the operating and service manual for all work.



14.1 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

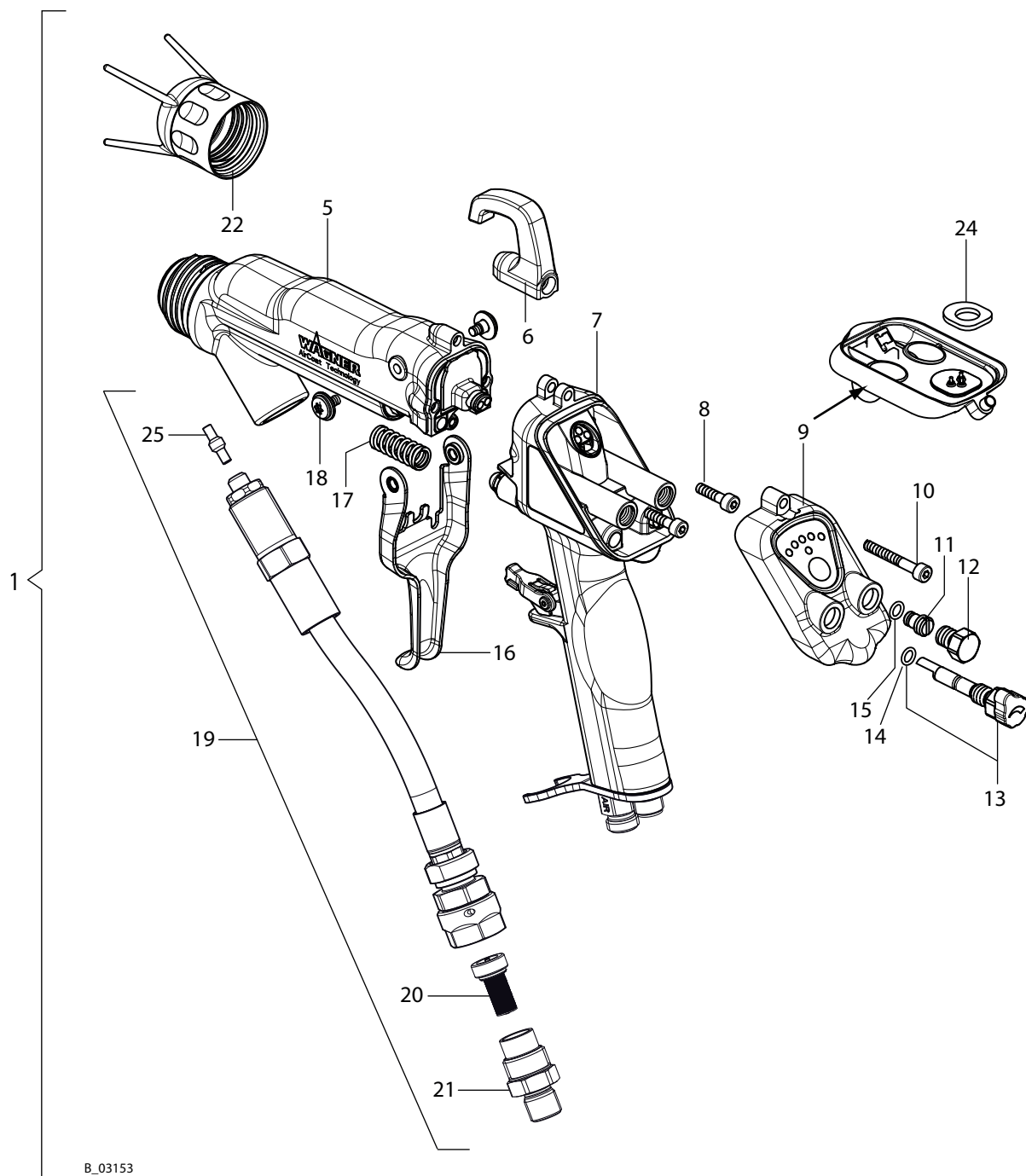
● Not part of the standard equipment but available as a special accessory

Explanation of order no. column:

- Item not available as spare part.
- / Position does not exist.

14.2 GM 5000EAC SPRAY GUN

14.2.1 GM 5000EAC - Basic Version



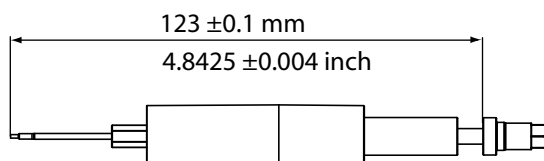
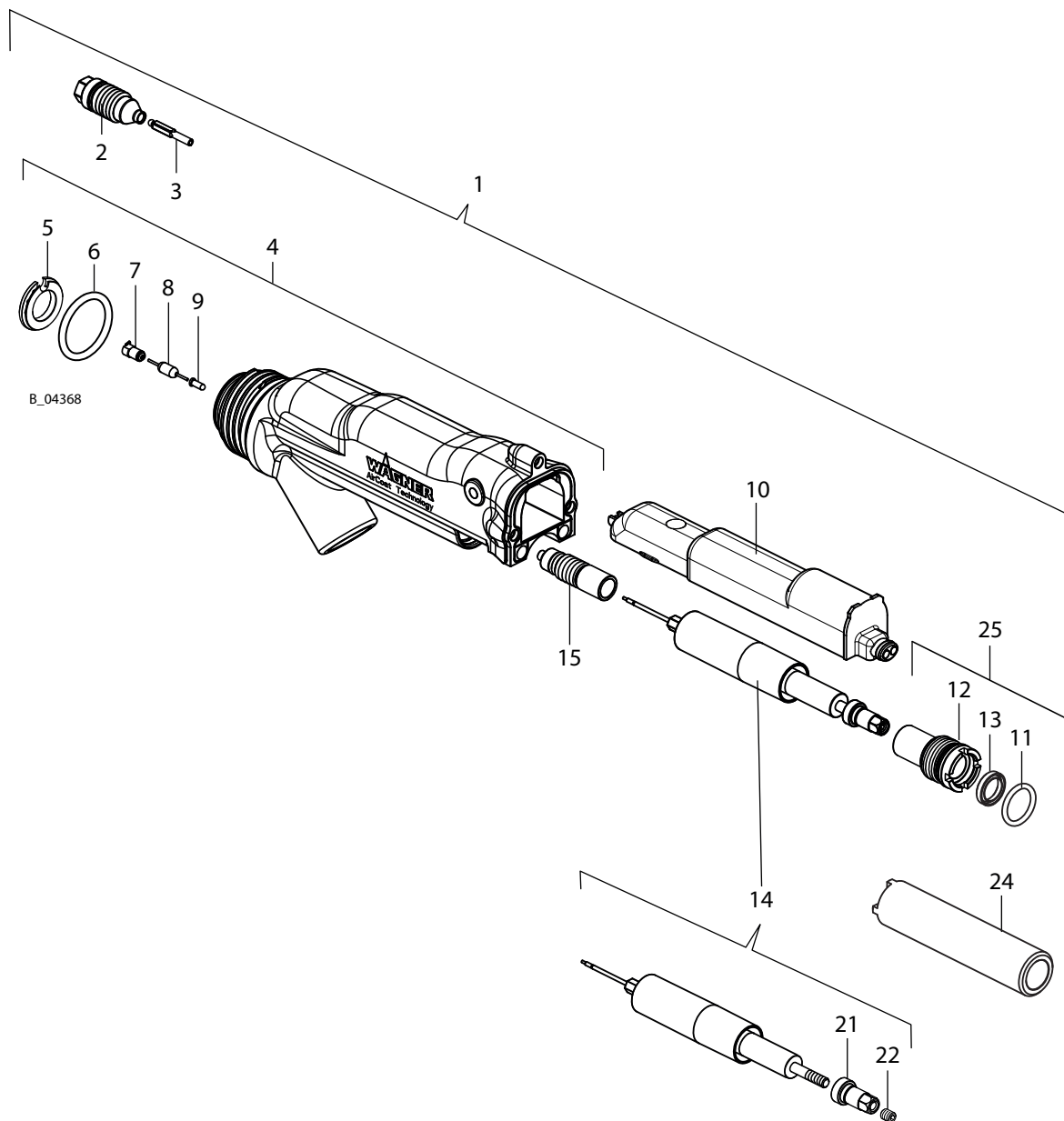
Dismantling and assembly: in accordance with chapter Repair Work [►► 53]

Pos	K	Stk	Order no.	Designation
1		1	<u>2309871</u>	GM 5000EAC, basic version
5		1	--	Adapter, GM 5000EAC, complete For details, see chapter GM 5000EAC - Adapter [►► 84]
6	◆	1	<u>2314361</u>	Hook
7		1	--	Handle, complete, GM 5000EAC For details, see chapter GM 5000EAC - Handle [►► 86]
8		2	<u>9900308</u>	Hexagon socket head cap screw
9		1	<u>2312183</u>	Cover, complete (including pos. 24)
10		1	<u>9900386</u>	Hexagon socket head cap screw
11		1	<u>2311970</u>	Sealing plug
12		1	<u>2307104</u>	Screw plug
13		1	<u>2312180</u>	Air regulation, complete (including pos. 14)
14	◆ *	1	<u>9971182</u>	O-ring
15	◆ *	1	<u>9971182</u>	O-ring
16	◆	1	<u>2314360</u>	Trigger
17		1	<u>2307283</u>	Cylindrical helical spring
18		2	<u>2310617</u>	Fillister head screw with hexagon socket
19	◆	1	<u>2314359</u>	Product hose, AC, complete
20	◆	1	<u>3204605</u>	Edge filter 100 mesh (black) (For further edge filter sizes, see chapter Filter [►► 73])
21		1	<u>2308764</u>	Filter socket, AC
22		1	<u>2315775</u>	AC union nut, complete
24	◆ *	1	<u>2308699</u>	Cover seal
25	◆	1	<u>2338853</u>	Connecting fitting, AC
	◆	1	<u>2326336</u>	Service set, GM 5000EAC

◆ = wearing parts

* = included in service set

14.2.2 GM 5000EAC - Adapter



Dismantling and assembly in accordance with chapter Repair work [► 53]

Pos	K	Stk	Order no.	Designation
1		1	--	Adapter, GM 5000EAC, complete
2	◆ *	1	<u>2312175</u>	Valve housing AC, complete
3	◆ *	1	<u>2312186</u>	Valve tip, AC, complete
4		1	<u>2353476</u>	Adapter, GM 5000EAC
5	*	1	<u>2313314</u>	Air manifold ring, AC
6	◆ *	1	<u>2307180</u>	O-ring, sheathed
7	◆ *	1	<u>2314283</u>	Contacting, AC
8	◆ *	1	<u>9952777</u>	High resistance, bare
9		1	<u>9960808</u>	Socket contact component (gold contact sleeve)
10		1	<u>2312181</u>	Cascade, complete
11	◆ *	1	<u>9974166</u>	O-ring
12		1	<u>2307062</u>	Clamping screw valve rod
13	◆ *	1	<u>2311562</u>	Rod seal
14	◆	1	<u>2313639</u>	Valve rod unit, AC
15	◆ *	1	<u>2357106</u>	Packing, complete
21		1	<u>2307059</u>	Trigger nut
22		1	<u>9901411</u>	Threaded pin with hexagon socket
24		1	<u>2325263</u>	Clamping screw assembly tool
25		1	<u>2357665</u>	Clamping screw valve rod, complete
		1	<u>2326336</u>	Service set, GM 5000EAC

◆ = wearing parts

* = included in service set

This exploded view diagram illustrates the components of a spray gun assembly. The parts are numbered as follows:

- 1**: Trigger gun handle assembly.
- 2**: Spray gun nozzle.
- 3**: Nozzle cap.
- 4**: Trigger gun trigger.
- 5**: Spray gun nozzle cap.
- 6**: Trigger gun handle.
- 7**: Trigger gun trigger guard.
- 8**: Trigger gun trigger guard cap.
- 9**: Trigger gun trigger guard cap screw.
- 10**: Trigger gun trigger guard cap screw.
- 11**: Trigger gun trigger guard cap screw.
- 12**: Trigger gun trigger guard cap screw.
- 13**: Trigger gun trigger guard cap screw.
- 14**: Trigger gun trigger guard cap screw.
- 15**: Trigger gun trigger guard cap screw.
- 16**: Trigger gun trigger guard cap screw.
- 17**: Trigger gun trigger guard cap screw.
- 18**: Trigger gun trigger guard cap screw.
- 19**: Trigger gun trigger guard cap screw.
- 20**: Trigger gun trigger guard cap screw.
- 21**: Trigger gun trigger guard cap screw.
- 22**: Trigger gun trigger guard cap screw.
- 23**: Trigger gun trigger guard cap screw.
- 24**: Trigger gun trigger guard cap screw.
- 25**: Trigger gun trigger guard cap screw.
- 26**: Trigger gun trigger guard cap screw.

Pos	K	Stk	Order no.	Designation
1		1	--	Handle, complete, GM 5000EAC
2		1	<u>2307288</u>	Fitting
3	◆ ★	1	<u>9971025</u>	O-ring
4		1	<u>2307290</u>	Hose holder
5		1	<u>2312182</u>	Plug, complete
6		1	<u>2314270</u>	Handle, complete
7	★	1	2307232	Adapter seal

Pos	K	Stk	Order no.	Designation
8		1	<u>2311952</u>	Stop screw
9		1	<u>2309825</u>	Fillister head screw with hexagon socket
10	◆ ★	1	<u>2310692</u>	Gasket
11		1	<u>2311182</u>	Parallel pin
12		1	<u>2309400</u>	Safety clip
13		1	<u>2312189</u>	Air valve
18	◆ ★	1	<u>9974218</u>	O-ring
23	◆ ★	1	<u>9974166</u>	O-ring
24		1	<u>2309817</u>	Type plate, left, GM 5000EAC*
25		1	<u>2309810</u>	Type plate, right, GM 5000E*
26		1	<u>9971364</u>	O-ring
		1	<u>2326336</u>	Service set, GM 5000EAC

◆ = wearing parts

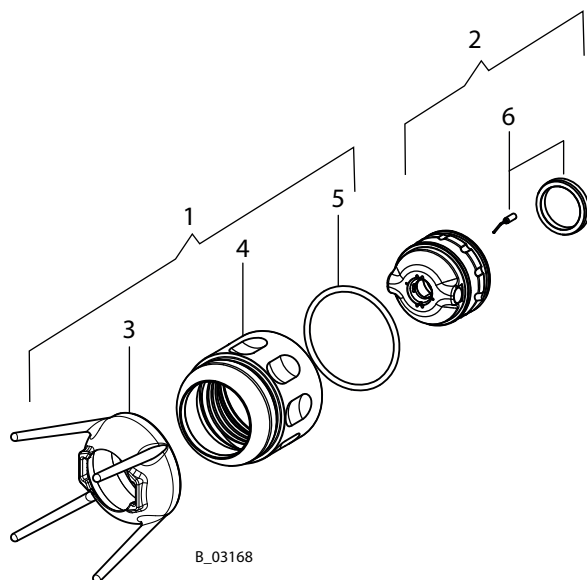
★ = included in service set

Note:

* Type plates may only be replaced by WAGNER staff or a skilled person!

14.3 ACCESSORIES SPARE PARTS LISTS

14.3.1 Flat jet nozzles

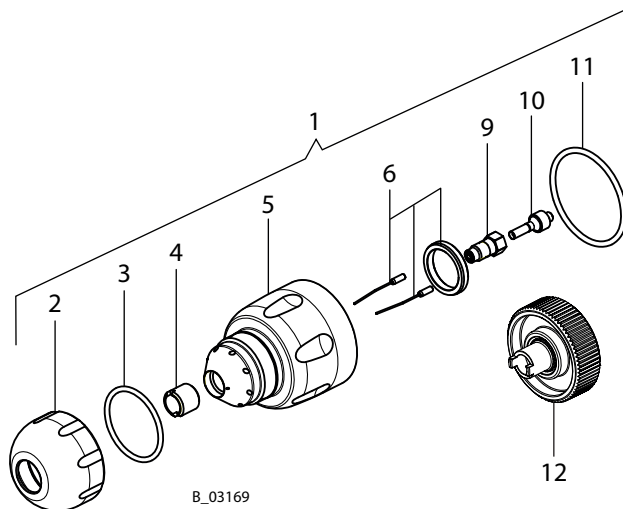


Pos	K	Stk	Order no.	Designation
1		1	<u>2315775</u>	AC union nut, complete
2		1	<u>2309882</u>	Air cap, ACF 5000 - LV (red)
		1	<u>2314203</u>	Air cap, ACF 5000 - HV (blue)
3	◆	1	<u>2311777</u>	Nozzle guard, AC

Pos	K	Stk	Order no.	Designation
4	◆	1	<u>2311776</u>	Union nut, AC
5	◆	1	<u>2311217</u>	O-ring, sheathed
6	◆	1	<u>2319525</u>	Flat electrode set

◆ = wearing parts

14.3.2 ACR 5000 Round Jet Nozzle Attachment



Pos	K	Stk	Order no.	Designation
1		1	<u>2309883</u>	Round jet nozzle attachment, ACR 5000
2		1	<u>2307220</u>	Nozzle nut
3	◆	1	<u>2315310</u>	O-ring
4	◆	1	<u>132351</u>	Nozzle screwed connection holder
5		1	<u>2307219</u>	Nozzle body
6	◆	1	<u>2319526</u>	Round electrode set
9	◆	1	<u>132516</u>	Nozzle screw joint, complete
10	◆	1	<u>2307216</u>	Sealing fitting
11	◆	1	<u>2311217</u>	O-ring
12		1	<u>128901</u>	Nozzle wrench, complete

◆ = wearing parts

15 DECLARATION OF CONFORMITY

15.1 UK DECLARATION OF CONFORMITY

UK Declaration of Conformity as defined by the UK statutory requirement UK SI 2016 No. 1107.
Herewith we declare that the supplied version of:

Electrostatic spraying system		
VM 500	GM 5000EA	GA 5000EA
VM 5000	GM 5000EAC	GA 5000EAC

complies with the following provisions applying to it:

SI 2016/1597	SI 2016/1107	SI 2016/1091	SI 2012/3032
--------------	--------------	--------------	--------------

Applied standards, in particular:

BS EN ISO 12100:2010	BS EN 50176:2009
BS EN 1953:2013	BS EN IEC 61000-6-2:2019
BS EN IEC 60204-1:2019	BS EN IEC 61000-6-4:2019
BS EN 60529:1992+A2:2013	BS EN IEC 63000:2018
BS EN 50050-1:2013	--

Type examination certificate:

CSAE 21 UKEX 5231 X

Quality certificate for the quality assurance system:

CSAE 23 UKQAN 0119

Identification:

Control unit

UK
CA 0518  II 3(2) G
CSAE 21 UKEX 5231 X

Spray gun:

UK
CA 0518  II 2 G 0.24 mJ
CSAE 21 UKEX 5231 X

Declaration of conformity

The declaration 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: 2310487



Order number 2432030
Edition 01/2025

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Version G



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