

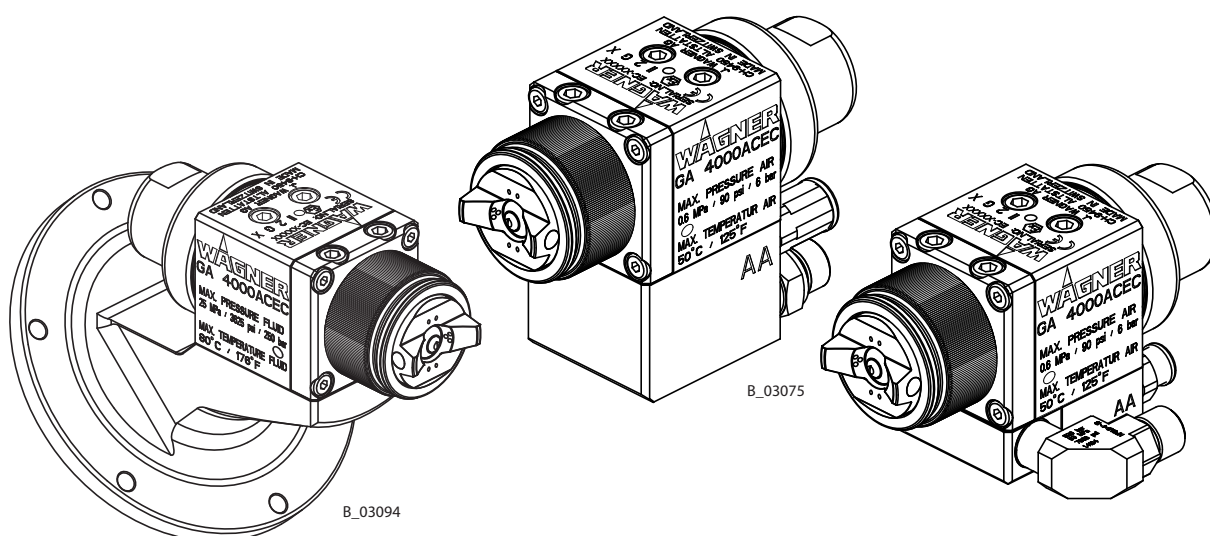


## Translation of the Original Operating Manual

**GA 4000ACEC-R**  
**GA 4000AC EC-S**  
**GA 4000ACEC-Fanuc Robot**

Version 06 / 2013

## **AirCoat** **Automatic Spray Gun**



II 2GX (Atex 95)



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# 1 ABOUT THIS OPERATING MANUAL

## 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 operating and service staff.

Operating and service staff should be instructed according to the safety instructions.

The device may only be operated in compliance with this operating manual.

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 THIS OPERATING MANUAL

Warning instructions in this operating 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.

|                                                                                     |                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>! DANGER</b></p> <p>This notice warns you of a hazard!<br/>Possible consequences of not observing the warning instructions.<br/>The signal word indicates the hazard level.</p> <p>→ The following are measures which can be taken to prevent the hazard and its consequences.</p> |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Warning** - possible imminent danger.  
Non-observance may result in death or serious injury.

|                                                                                     |                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>! WARNING</b></p> <p>This notice warns you of a hazard!<br/>Possible consequences of not observing the warning instructions.<br/>The signal word indicates the hazard level.</p> <p>→ The following are measures which can be taken to prevent the hazard and its consequences.</p> |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Caution** - a possibly hazardous situation.  
Non-observance may result in minor injury.

|                                                                                     |                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>! CAUTION</b></p> <p>This notice warns you of a hazard!<br/>Possible consequences of not observing the warning instructions.<br/>The signal word indicates the hazard level.</p> <p>→ The following are measures which can be taken to prevent the hazard and its consequences.</p> |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Notice** - a possibly hazardous situation.  
Non-observance may result in material damage.

|  |                                                                                                                                                                                                                                                                                    |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><b>NOTICE</b></p> <p>This notice warns you of a hazard!<br/>Possible consequences of not observing the warning instructions. The signal word indicates the hazard level.</p> <p>→ The following are measures which can be taken to prevent the hazard and its consequences.</p> |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Note** - provides information about particular characteristics and how to proceed.

### 1.3 LANGUAGES

The operating manual is available in the following languages:

| <b>Language:</b> | <b>Order No.</b> | <b>Language:</b> | <b>Order No.</b> |
|------------------|------------------|------------------|------------------|
| German           | 2311056          | English          | 2311057          |
| French           | 2311058          | Italian          | 2311059          |
| Spanish          | 2311060          | Swedish          | 2316799          |

### 1.4 ABBREVIATIONS IN THE TEXT

|                  |                                           |
|------------------|-------------------------------------------|
| <b>Stk</b>       | Number of pieces                          |
| <b>Pos</b>       | Position                                  |
| <b>K</b>         | Marking in the spare parts lists          |
| <b>Order No.</b> | Order number                              |
| <b>RP</b>        | Replaceable Packing (replaceable packing) |
| <b>PTFE</b>      | Polytetrafluoroethylene                   |
| <b>GF</b>        | Fiber optics                              |
| <b>PE</b>        | Polyethylene                              |
| <b>UWMW-PE</b>   | Ultra-high molecular polyethylene         |
| <b>FPM</b>       | Fluoropolymer rubber (Viton)              |
| <b>POM</b>       | Polyoxymethylene (Acetal)                 |
| <b>PA</b>        | Polyamide                                 |
| <b>SW</b>        | Wrench size for tool                      |
| <b>TX</b>        | Torx size (tool)                          |

## **2 CORRECT USE**

---

### **2.1 DEVICE TYPES**

AirCoat automatic spray gun with the type designation:

|             |
|-------------|
| GA 4000ACEC |
|-------------|

### **2.2 TYPE OF USE**

The device is suitable for processing liquid materials such as paints and varnishes in accordance with their classification into explosion classes IIA or IIB, especially coating materials using the AirCoat process.

### **2.3 USE IN AN EXPLOSION HAZARD AREA**

The device can be employed in explosion hazard zones (Zone 1).



## 2.4 SAFETY PARAMETERS



WAGNER accepts no liability for any damage arising from incorrect use.

- Use the device only to work with the products recommended by WAGNER.
- Only operate the device as a whole.
- Do not deactivate safety fixtures.
- Use only WAGNER original spare parts and accessories.

The device may only be operated under the following conditions:

- The operating staff have previously been trained on the basis of this operating manual.
- The safety regulations listed in this operating manual must be observed.
- The operating, maintenance, and repair information in this operating manual must be observed.
- The statutory requirements and accident prevention regulation standards in the country of use must be observed.

## 2.5 PROCESSIBLE PRODUCTS

Top-coat paints, primer paints, corrosion protection, textured paints, lyes, staining solvents, clear paints, separating agents, etc. with a solvent or water basis.

**Note:**

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

## 2.6 REASONABLY FORESEEABLE MISUSE

The following is prohibited:

- coating work pieces which are not grounded,
- unauthorized conversions and modifications to the device,
- processing dry or similar coating materials, and
- using defective components, spare parts or accessories other than those described in Chapter 10 of this operating manual.

The forms of misuse listed below may result in health issues and/or material damage:

- use of powder as a coating product

Wagner devices are not designed for use with food.

## 2.7 RESIDUAL RISKS

Residual risks are risks which cannot be excluded even in the event of correct use.

If necessary, warning and prohibition signs at the relevant points of risk indicate residual risks.

| <b>Residual risk</b>                            | <b>Source</b>                               | <b>Consequences</b>                          | <b>Specific measures</b>                               | <b>Lifecycle phase</b>              |
|-------------------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------------------|-------------------------------------|
| Skin contact with lacquers and cleaning agents  | Handling of lacquers and cleaning agents    | Skin irritations, allergies                  | Wear protective clothing<br>Observe safety data sheets | Operation, maintenance, disassembly |
| Lacquer in air outside the defined working area | Lacquering outside the defined working area | Inhalation of substances hazardous to health | Observe working and operating instructions             | Operation, maintenance              |

### 3 IDENTIFICATION

#### 3.1 EXPLOSION PROTECTION IDENTIFICATION

AirCoat automatic spray gun with the type designation:

|             |
|-------------|
| GA 4000ACEC |
|-------------|

As defined in Directive 94/9/EC (ATEX 95), the device is suitable for use in areas where there is an explosion hazard.

**CE**  II 2G X



CE: European Communities  
 Ex: Symbol for explosion protection  
 II: Device class II  
 2: Category 2 (Zone 1)  
 G: Ex-atmosphere gas  
 X: Special Notice

#### 3.2 "X" SPECIAL NOTICES

X: The maximum surface temperature corresponds to the permissible product temperature.

|                                 |    |            |
|---------------------------------|----|------------|
| Maximum product temperature     | °C | +80        |
|                                 | °F | +176       |
| Permissible ambient temperature | °C | +5 ÷ +40   |
|                                 | °F | +41 ÷ +104 |

## 4 GENERAL SAFETY INSTRUCTIONS

### 4.1 SAFETY INSTRUCTIONS FOR THE OPERATOR

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



#### 4.1.1 ELECTRICAL EQUIPMENT

Electrical devices and equipment

- To be provided in accordance with the local safety requirements with regard to the operating mode and ambient influences.
- May only be maintained by skilled electricians or under their supervision.
- Must be operated in accordance with the safety regulations and electrotechnical regulations.
- Must be repaired immediately in the event of problems.
- Must be decommissioned if they pose a hazard.
- Must be de-energized before work is commenced on active parts. Inform staff about planned work. Observe electrical safety regulations.

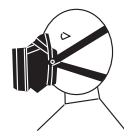


#### 4.1.2 STAFF QUALIFICATIONS

- Ensure that the device is operated and repaired only by trained persons.

#### 4.1.3 SAFE WORK ENVIRONMENT

- Make sure that the floor in the area where you are working is electrostatically conductive in accordance with EN 61340-4-1.
- Ensure that all persons within the working area wear electrostatically conductive shoes.
- Ensure that during spraying, persons wear electrically conductive gloves. The grounding takes place via the spray gun handle.
- Paint mist extraction systems must be fitted on site according to local regulations.
- Ensure that the following components of a safe working environment are available:
  - Product/air hoses adapted to the working pressure.
  - Personal safety equipment (breathing and skin protection).
- Ensure that there are no ignition sources such as naked flames, sparks, glowing wires, or hot surfaces in the vicinity. Do not smoke.



## 4.2 SAFETY INSTRUCTIONS FOR STAFF

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



### 4.2.1 SAFE HANDLING OF WAGNER SPRAY DEVICES

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

Avoid injection of paint or cleaning agents:

- Never point the spray gun at people.
- Never reach into the spray jet.
- Before all work on the device, in the event of work interruptions and functional faults:
  - Switch off the energy/compressed air supply.
  - Secure the spray gun against actuation.
  - Relieve the pressure from the spray gun and device.
  - In the event of functional faults: remedy the fault as described in the "Troubleshooting" chapter.
- The liquid ejection devices are to be checked for safe working conditions by an expert (e.g. Wagner Service Technician) as often as necessary or at least every 12 months, in accordance with the guidelines for liquid ejection devices (ZH 1/406 and BGR 500 Part 2 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 paint or cleaning agents:

- Note down the paint or cleaning agent that you have been using.
- Consult a doctor immediately.

Avoid danger of injury through recoil forces:

- Ensure that you have firm footing when operating the spray gun.
- Only hold the spray gun briefly in a position.



### 4.2.2 GROUNDING THE UNIT

In order to avoid electrostatic charging of the device, the device must be grounded.

Friction, flowing liquids, and air or electrostatic coating processes create charges. Flames or sparks can form during discharge.

- Ensure that the device is grounded for every spraying operation.
- Ground the work pieces to be coated.
- Ensure that all persons inside the working area are grounded, e.g. that they are wearing dissipative shoes.
- Wear dissipative gloves when spraying. The grounding takes place via the spray gun handle.



### 4.2.3 PRODUCT HOSES

- Ensure that the hose material is chemically resistant to the sprayed products.
- Ensure that the product hose is suitable for the pressure generated in the device.
- Make sure that the hoses are laid only in suitable places. In no case, should hoses be laid in the following places:
  - in high-traffic areas,
  - on sharp edges,
  - on moving parts, or
  - on hot surfaces
- Make sure that the hoses are never used to pull or move the equipment.
- The electrical resistance of the complete high-pressure hose must be less than 1 Mohm. Several liquids have a high expansion coefficient. In some cases their volume can rise with consequent damage to pipes, fittings, etc. and cause fluid leakage.



### 4.2.4 CLEANING

- De-energize the device electrically.
- Disconnect the pneumatic supply line.
- Relieve the pressure from the device.
- Ensure that the flash point of the cleaning agent is at least 5 K above the ambient temperature.
- To clean, use cloths and brushes moistened with solvent. Never use hard objects or spray on cleaning agents with a gun.

An explosive gas/air mixture forms in closed tanks.

- When cleaning devices with solvents, never spray into a closed tank.
- Ground the tank.



### 4.2.5 HANDLING HAZARDOUS LIQUIDS, LACQUERS AND PAINTS

- When preparing or working with lacque and when cleaning the unit, follow the working instructions of the manufacturer of the lacquers, solvents and cleaning agents being used.
- Take the specified protective measures. In particular, wear safety goggles, protective clothing, and gloves, as well as hand protection cream if necessary.
- Use a mask or a 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.



#### 4.2.6 TOUCHING HOT SURFACES

- Only touch hot surfaces if you are wearing protective gloves.
- When operating the device with a coating product with a temperature of > 43 °C; 109.4 °F:
  - Identify the device with a warning label "Warning - hot surface".

**Order No.**

9998910                      Instruction label

9998911                      Protection sticker

**Note:** Order the two stickers together.

#### 4.3 USE IN AREAS SUBJECT TO EXPLOSION HAZARDS

The device may be used in areas subject to explosion hazards. The following safety regulations must be observed and followed.



##### 4.3.1 SAFETY REGULATIONS

**Safe handling of WAGNER spray devices**

Mechanical sparks can form if the device comes into contact with metal.

In an explosive atmosphere:

- Do not knock or push the unit against steel or rusty iron.
- Do not drop the device.
- Use suitable tools only.

**Ignition temperature of the pumped product**

- Check that the ignition temperature of the pumped product is higher than the max. allowable surface temperature.

**Medium supporting atomizing**

- To atomize the product, use only weakly oxidizing gases, e.g. air.

**Cleaning**

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

- Remove deposits from the surfaces to maintain conductivity.

## 5 DESCRIPTION

---

### 5.1 FIELD OF APPLICATION

The device is suitable for processing liquid products such as paints and lacquers in accordance with their classification into explosion classes IIA or IIB, especially coating products using the AirCoat process.

### 5.2 SCOPE OF DELIVERY

#### 5.2.1 TYPE DESIGNATION

|           |             |           |           |           |
|-----------|-------------|-----------|-----------|-----------|
| <b>GA</b> | <b>4000</b> | <b>AC</b> | <b>XX</b> | <b>XX</b> |
| ①         | ②           | ③         | ④         | ⑤         |

- ① **GA** = Automatic gun
- ② **4000** = Gun type
- ③ **AC** = AirCoat spraying process
- ④ **IC** = Shaping and atomizing air controlled via valve within gun.  
**EC** = Shaping and atomizing air controlled via valve outside of gun.
- ⑤ **C** = Circulation operating mode.  
**NC** = No circulation operating mode.

**5.2.2 OVERVIEW**

The Aircoat automatic spray gun is composed of the standard variant and supplementary components. Circulation operating mode is possible.

5.2.4.4  
Round Nozzles,  
Supplementary Components

5.2.4.3  
Flat Nozzles, Supplementary  
Components

5.2.3  
Standard Equipment GA 4000ACEC  
Automatic Gun

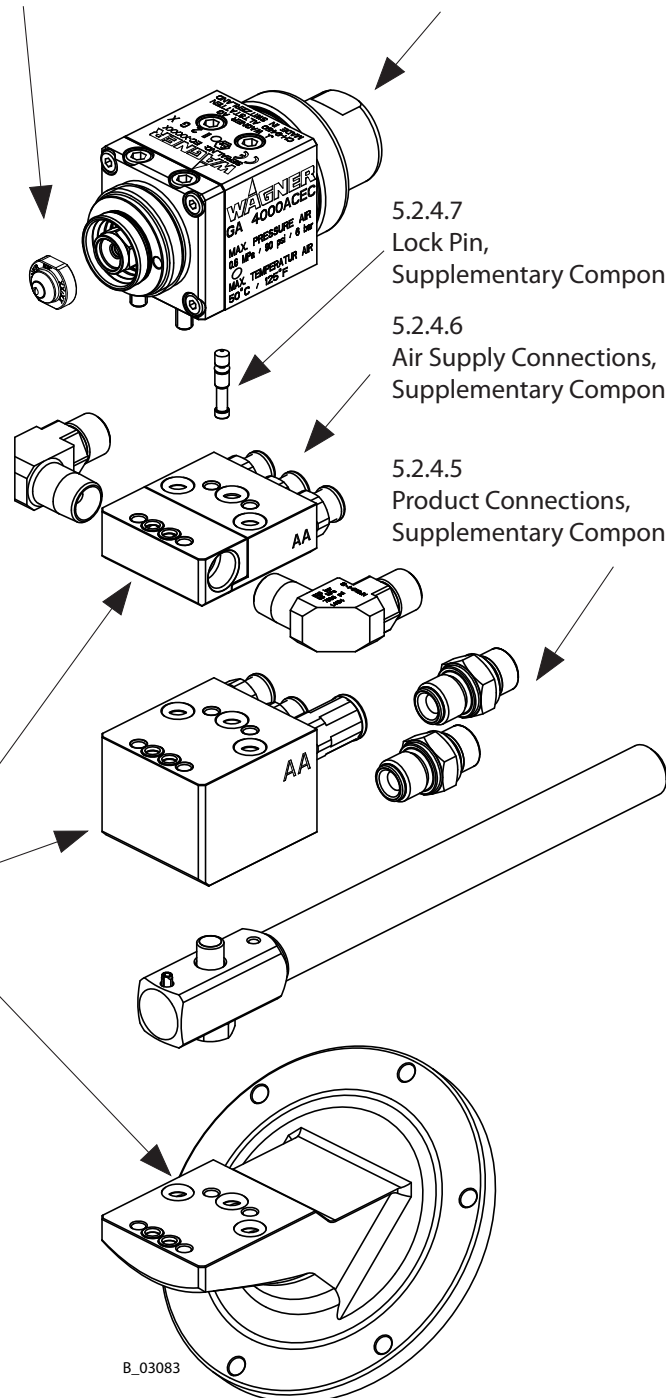
5.2.4.7  
Lock Pin,  
Supplementary Components

5.2.4.6  
Air Supply Connections,  
Supplementary Components

5.2.4.5  
Product Connections,  
Supplementary Components

5.2.4.2  
Air Caps,  
Supplementary Component

5.2.4.1  
Ground Plates,  
Supplementary Component



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**5.2.3 STANDARD EQUIPMENT**

| Order No. | Designation                            |
|-----------|----------------------------------------|
| 2312145   | AirCoat automatic gun GA 4000ACEC      |
| 2338602   | AirCoat automatic gun GA 4000ACEC (RP) |

The standard equipment includes:

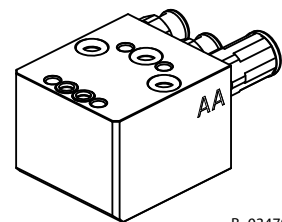
| Order No.     | Designation                        |
|---------------|------------------------------------|
| 2315627       | CE Declaration of Conformity       |
| 2311056       | Operating manual, German           |
| See Chapter 1 | Operating manual in local language |

The supplementary components can be used to harmonize and supplement the standard equipment of the automatic gun perfectly to any application depending upon requirements and accessory requests.

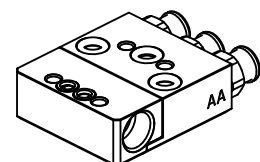
The delivery note shows the exact scope of delivery.

**5.2.4 SUPPLEMENTARY COMPONENTS****5.2.4.1 BASE PLATES**

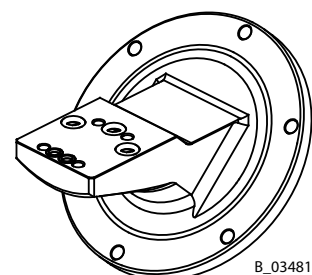
| Order No. | Designation                                                                   |
|-----------|-------------------------------------------------------------------------------|
| 2308812   | Ground plate GA 4000ACEC R<br>(including seals and air connections)           |
| 2312146   | Ground plate GA 4000ACEC S<br>(including seals and air connections)           |
| 2313677   | Ground plate GA 4000ACEC Fanuc Robot<br>(including seals and air connections) |



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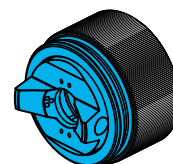
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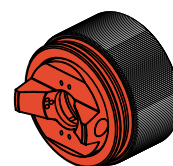
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**5.2.4.2 AIR CAPS**

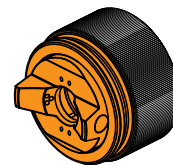
| Order No. | Designation                                        |
|-----------|----------------------------------------------------|
| 2308809   | Air cap HV plus (blue) for high viscosity products |
| 2308808   | Air cap LV plus (red) for low viscosity products   |
| 2313493   | Air cap LA plus (bronze)                           |
| 2340299   | Air cap LV plus (blank)                            |



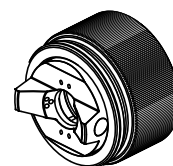
B\_03048



B\_03049



B\_03098



B\_04231

**5.2.4.3 AIRCOAT FLAT JET NOZZLES ACF3000**

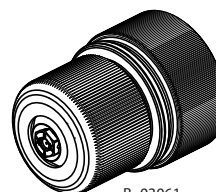
| Order No. | Designation                                          |
|-----------|------------------------------------------------------|
| 379XXX    | Chapter 10 contains assistance for selecting nozzles |



B\_00021

**5.2.4.4 AIRCOAT ROUND JET NOZZLES ACR3000**

| Order No. | Designation                                          |
|-----------|------------------------------------------------------|
| 379XXX    | Chapter 10 contains assistance for selecting nozzles |



B\_03061

**5.2.4.5 PRODUCT CONNECTIONS**

| Order No. | Designation                 |
|-----------|-----------------------------|
| 350550    | Straight connecting fitting |
| 2314065   | 90° connecting fitting      |



B\_03074



B\_03097

**5.2.4.6 AIR SUPPLY CONNECTIONS**

| Order No. | Designation                                                               |
|-----------|---------------------------------------------------------------------------|
| 9998090   | Straight threaded fitting Ø 6 mm - 1/8"; Ø 0.24 inch - 1/8"<br>* Standard |
| 9998993   | Straight threaded fitting Ø 8 mm - 1/8"; Ø 5/16" - 1/8"                   |



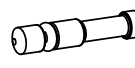
B\_00507



B\_00508

**5.2.4.7 LOCK PIN**

| Order No. | Designation       |
|-----------|-------------------|
| 2310534   | Complete lock pin |



B\_03050

**5.2.4.8 PACKING INSERT GA 4000AC**

| Order No. | Designation                    |
|-----------|--------------------------------|
| 2313516   | Standard packing GA 4000 AC    |
| 2338601   | Packing insert GA 4000 AC (RP) |



B\_04228

**5.2.4.9 DISTRIBUTOR MOUNTINGS**

| Order No. | Designation                                   |
|-----------|-----------------------------------------------|
| 2314279   | Valve mounting GA 4000AC complete (80° angle) |
| 2340315   | Valve mounting GA 4000AC complete (50° angle) |

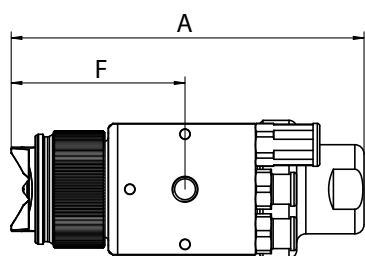


B\_04232

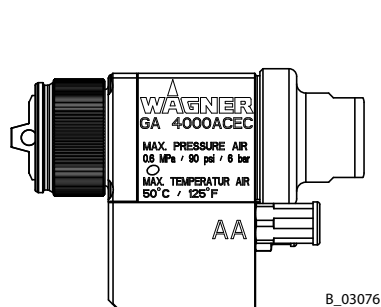
**5.3 DATA****5.3.1 TECHNICAL DATA**

| <b>Description</b>                                                                                            | <b>Devices</b>    | <b>GA 4000AC EC</b>    | <b>GA 4000AC EC<br/>Robot FANUC</b> |
|---------------------------------------------------------------------------------------------------------------|-------------------|------------------------|-------------------------------------|
| Maximum air inlet pressure                                                                                    | MPa<br>bar<br>psi | 0.6<br>6<br>87         | 0.6<br>6<br>87                      |
| Maximum product pressure                                                                                      | MPa<br>bar<br>psi | 25<br>250<br>3625      | 25<br>250<br>3625                   |
| Product connection (internal thread)                                                                          | inch              | G1/4"                  | G1/4"                               |
| Air connection (internal thread)                                                                              | inch              | G1/8"                  | G1/8"                               |
| Weight (standard equipment)                                                                                   | g<br>oz           | 760<br>26.8            | 1130<br>39.9                        |
| Maximum product temperature                                                                                   | °C<br>°F          | 80<br>176              | 80<br>176                           |
| Maximum air temperature                                                                                       | °C<br>°F          | 50<br>122              | 50<br>122                           |
| Maximum ambient temperature                                                                                   | °C<br>°F          | +5 ÷ +40<br>+41 ÷ +104 | +5 ÷ +40<br>+41 ÷ +104              |
| Sound level at 0.3 MPa; 3 bar; 43.5 psi<br>air pressure and 11 MPa; 110 bar;<br>1549 psi material pressure ** | dB(A)             | 82.0                   | 82.0                                |

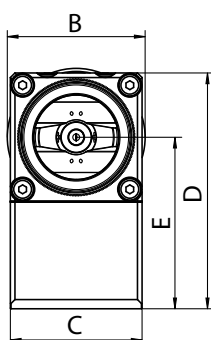
\*\* A-rated sound pressure level measured at 0.5 m distance, L<sub>pa</sub>0.5m, in accordance with DIN EN 14462: 2005.

**5.3.2 MEASUREMENTS AND CONNECTIONS**

|   | mm  | inch |
|---|-----|------|
| A | 115 | 4.53 |
| B | 45  | 1.77 |
| C | 43  | 1.69 |
| D | 77  | 3.03 |
| E | 56  | 2.20 |
| F | 57  | 2.24 |



B\_03076

**Connection data:**

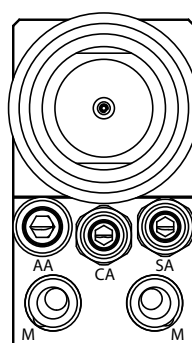
Ground plate to GA 4000ACEC R

CA = G1/8" -&gt; 6 mm; 0.24 inch Control air

AA = G1/8" -&gt; 8 mm; 0.31 inch Atomizing air

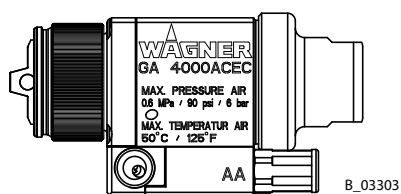
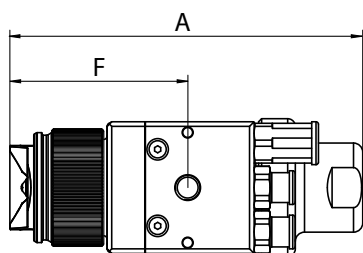
SA = G1/8" -&gt; 6 mm; 0.24 inch Shaping air

M = G1/4" -&gt; NPS1/4" Product

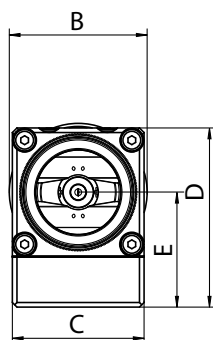


B\_3084

GA 4000ACEC-R



B\_03303



|   | mm   | inch |
|---|------|------|
| A | 115  | 4.53 |
| B | 45   | 1.77 |
| C | 43   | 1.69 |
| D | 58.5 | 2.30 |
| E | 37.5 | 1.48 |
| F | 58   | 2.28 |

**Connection data:**

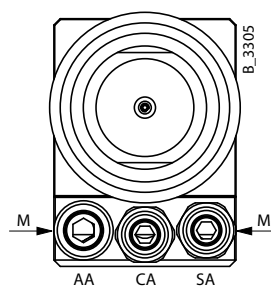
Ground plate to GA 4000ACEC S

CA = G1/8" -&gt; 6 mm; 0.24 inch Control air

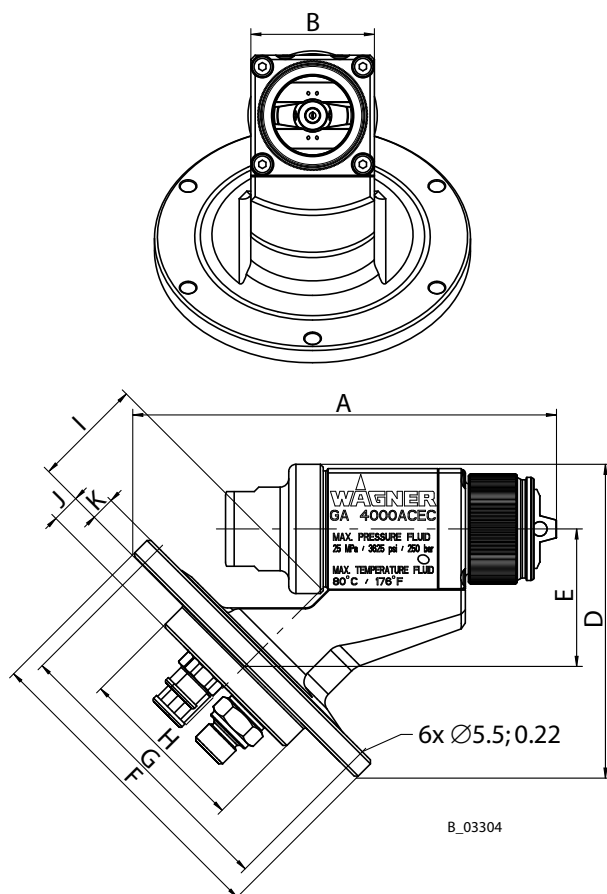
AA = G1/8" -&gt; 8 mm; 0.31 inch Atomizing air

SA = G1/8" -&gt; 6 mm; 0.24 inch Shaping air

M = G1/4" -&gt; NPS1/4" Product



GA 4000ACEC-S



|   | mm   | inch |
|---|------|------|
| A | 148  | 5.83 |
| B | 43   | 1.69 |
| D | 109  | 4.29 |
| E | 48   | 1.89 |
| F | 110  | 4.33 |
| G | 100  | 3.94 |
| H | 59.8 | 2.35 |
| I | 38   | 1.50 |
| J | 10   | 0.39 |
| K | 8    | 0.31 |

**Connection data:**

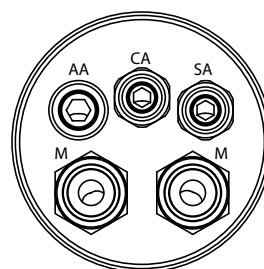
Base plate to GA 4000ACEC Fanuc Robot

CA = G1/8" -&gt; 6 mm; 0.24 inch Control air

AA = G1/8" -&gt; 8 mm; 0.31 inch Atomizing air

SA = G1/8" -&gt; 6 mm; 0.24 inch Shaping air

M = G1/4" -&gt; NPS1/4" Product



GA 4000ACEC Fanuc Robot

**5.3.3 MATERIALS OF PAINT WETTED PARTS****Metals**

Carbide

Stainless steel 1.4310

Stainless steel 1.4305

Stainless steel 1.4104

Nickel-plated aluminum

**Plastics**

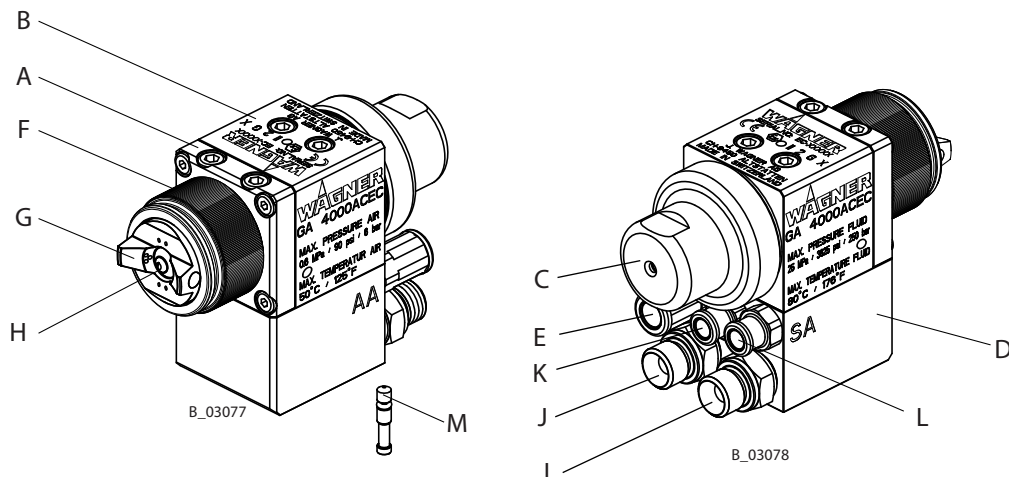
UHMW-PE

PTFE

FPM

POM

PA 6.6

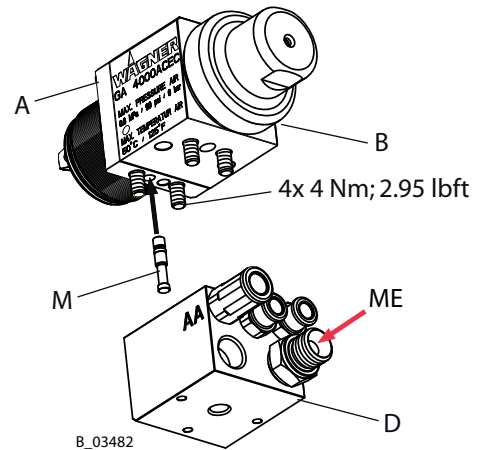
**5.4 FUNCTIONAL DESCRIPTION****5.4.1 DESIGN OF SPRAY GUN**

|   | Designation                      |
|---|----------------------------------|
| A | Gun head                         |
| B | Spray gun body                   |
| C | Tension sleeve drive             |
| D | Base plate                       |
| E | Atomizing air connection (blue)  |
| F | Union nut                        |
| G | Air cap (blue, red or bronze)    |
| H | Nozzle                           |
| I | Connecting fitting (product)     |
| J | Connecting fitting (product)     |
| K | Connection for control air (red) |
| M | Product channel lock pin         |
| L | Shaping air connection (green)   |

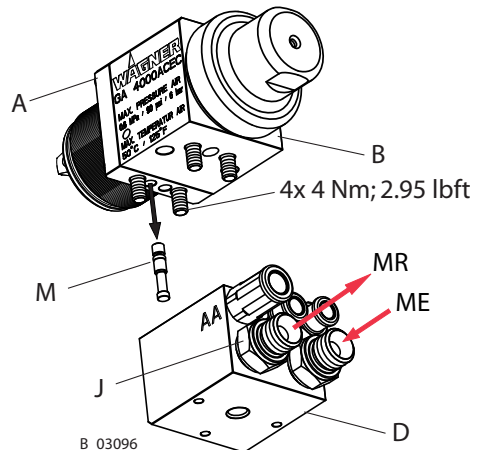
The device consists of a gun head (A), gun body (B), drive (C) and base plate (D). The air cap (G), appropriate nozzle (H) and various parts for sealing and fastening are attached to the gun head (A). The product valve and packing are housed in the gun head (A). The clamping mechanism for the packing is installed in the gun body (B). The gun body also serves as a connecting piece between the drive (C) and the gun head (A). The drive (C) consists a diaphragm and a pressure spring for the product valve. The base plate (D) contains all links (I, J, K, L). It can be used to connect the gun to the corresponding reciprocator or gun holder.

**5.4.2 MODES "NC" AND "C"****5.4.2.1 MODE "NC" WITHOUT PRODUCT CIRCULATION**

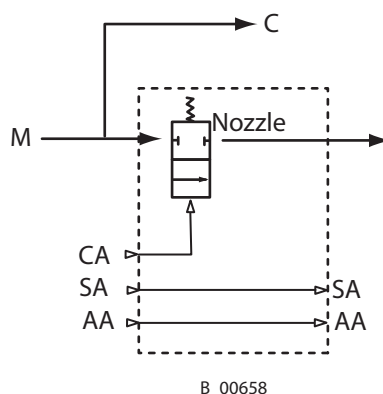
In this mode of operation, the left or the right product channel in the gun head (A) is locked by the lock pin (M) and the product entrance (ME) is always on the opposite side.

**5.4.2.2 MODE "C" WITH PRODUCT CIRCULATION**

In this mode of operation, the lock pin (M) must be removed from the left or right product channel in the gun head (A). Screw on additional connection fitting (J). The product entrance (ME) and the product return (MR) are freely selectable in this mode of operation.

**5.4.3 FUNCTIONS OF THE SPRAY GUN****GA 4000ACEC diagram and robot**

- SA = Shaping air
- AA = Atomizing air
- CA = Control air
- M = Product
- C = Circulation

**Open:**

First, the external air valve, which enables the shaping and atomizing air, is opened. The diaphragm in the drive is then charged with control air and moves toward the rear, opening the product valve. In this position, the pressurized coating product is applied to the work piece.

**Close:**

The diaphragm is relieved, and the product valve closes due to the pressure spring which presses against the product valve tappet.  
The air valve is then closed externally.

**Additional functions:**

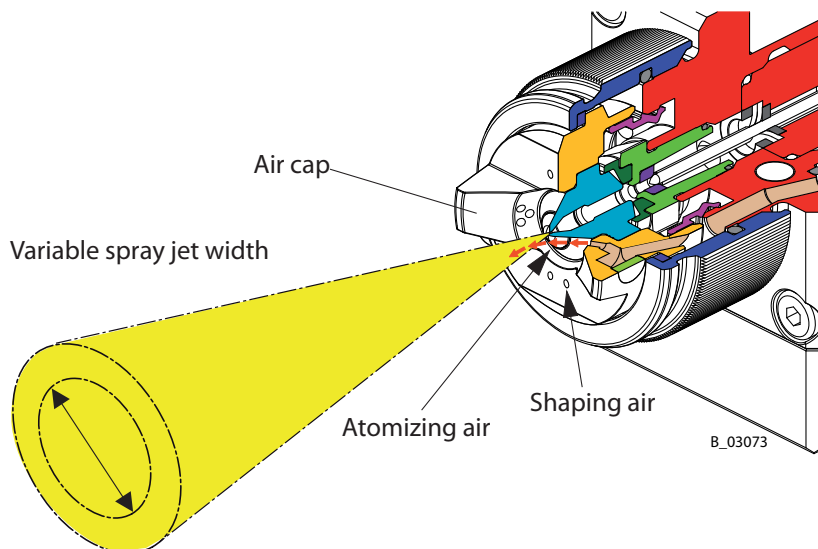
The shaping air pressure and the atomizing air pressure are set externally via separate pressure regulators. Both air flows are supplied separately, which allows them to be set separately.

The product connections and the paint channels in the base plate are arranged so that several guns can run in circulation mode.

## 5.5 SPRAYING PROCESS

### 5.5.1 FLAT AIRCOAT JET SPRAY PROCESS

With the AirCoat flat jet process the spray product is normally atomized at a pressure of 3-12 MPa; 30-120 bar; 435-1740 psi. A soft, optimum flat spray is achieved with help of the atomizing air, which has a pressure of 0.05-0.25 MPa; 0.5-2.5 bar; 7.2-36 psi. This eliminates most overlapping problems in the peripheral zones. The shaping air allows the width of the spray jet to be increased or decreased.

**Advantages:**

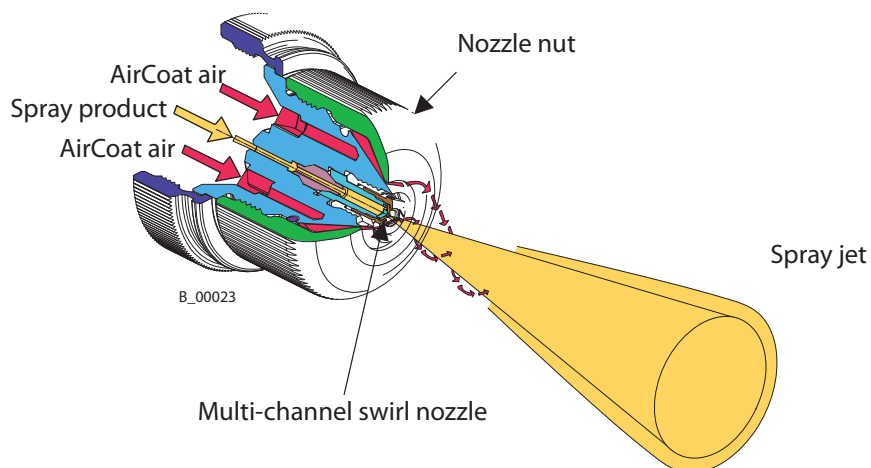
- Large application volume.
- Low fogging tendency.
- Good finish.
- High viscosity products can easily be applied.
- Jet width adjustment.

### 5.5.2 AIRCOAT ROUND JET SPRAY PROCESS

With the AirCoat round jet process, the spray product is normally atomized at a pressure of 3-12 MPa; 30-120 bar; 435-1740 psi.

The air at 0.05-0.25 MPa; 0.5-2.5 bar; 7.2-36 psi normally produces a soft jet. The spray jet can be adjusted by turning the nozzle nut.

The multi-channel swirl nozzle produces fine paint particles, while at the same time reducing their forwards speed and swirling them to produce a rotating motion. The result is a soft, extremely well atomized spraying cloud.



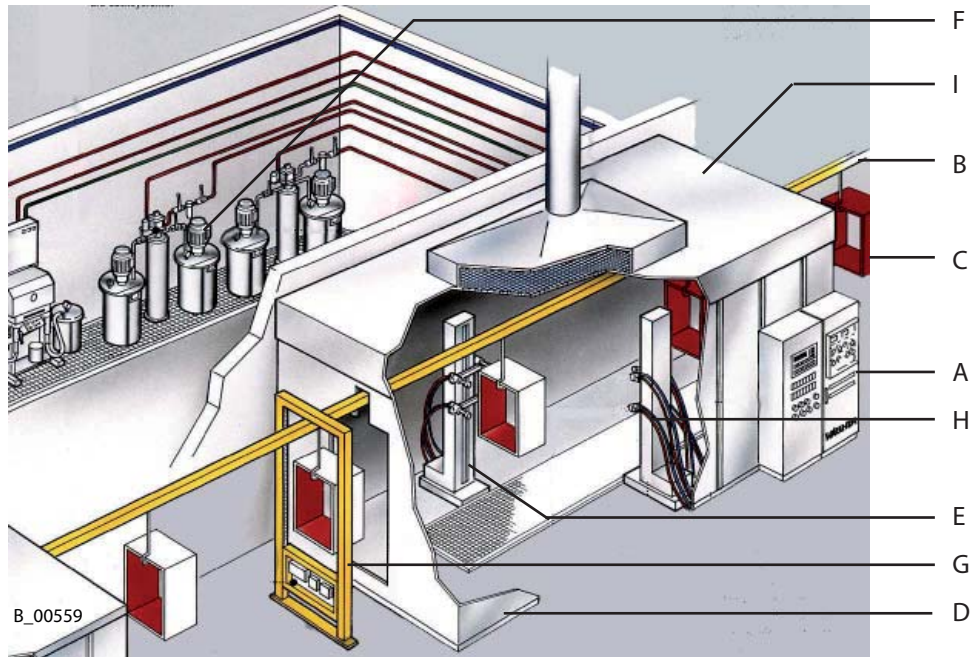
#### Advantages:

- Large application volume.
- Low fogging tendency.
- Good finish.
- High viscosity products can easily be applied.

## 6 ASSEMBLY AND COMMISSIONING

### 6.1 INSTALLATION AND CONNECTION

#### 6.1.1 TYPICAL AUTOMATIC SPRAYING SYSTEM



B\_00559

|   | Designation                              |
|---|------------------------------------------|
| A | Control cabinet                          |
| B | Conveyor                                 |
| C | Work piece                               |
| D | Spray booth                              |
| E | Reciprocator                             |
| F | Paint supply                             |
| G | Part recognition                         |
| H | Spray guns                               |
| I | Supply air system and exhaust air system |

The spray gun must be used as a part of an spraying system. The spraying system shown in the figure is only one example of an AirCoat spraying system. Contact your Wagner distributor for assistance in putting together a system to meet your needs.

You must familiarize yourself with the operating instructions and the safety regulations for all additional system components required before starting with commissioning.

**6.1.2 VENTILATION OF THE SPRAY BOOTH**

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  <b>WARNING</b>                                                                                                                                                                                                                                                                                                                  |
|                                                                                   | <p><b>Toxic and/or flammable vapor mixtures!</b><br/>Risk of poisoning and burns.</p> <ul style="list-style-type: none"> <li>→ Operate the device in a spray booth approved for the products.</li> <li>-or-</li> <li>→ Operate the device on an appropriate spraying wall with the ventilation (extraction) switched on.</li> <li>→ Observe national and local regulations for the outgoing air speed.</li> </ul> |

**6.1.3 AIR SUPPLY**

The use of an air filter with the air regulator ensures that only dry, clean atomizing air enters the spray gun. Dirt and moisture in the atomizing air worsens the spraying quality and spraying pattern.

**6.1.4 PRODUCT SUPPLY**

|                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NOTICE</b>                                                                                                                                                                                  |
| <p><b>Impurities in the spraying system!</b><br/>Spray gun blockage, products harden in the spraying system.</p> <p>→ Flush the spray gun and paint supply with a suitable cleaning agent.</p> |

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  <b>DANGER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                                                                                     | <p><b>Bursting hose, bursting threaded joints!</b><br/>Danger to life from injection of product.</p> <ul style="list-style-type: none"> <li>→ Ensure that the hose material is chemically resistant to the sprayed products.</li> <li>→ Ensure that the spray gun, threaded joints, and product hose between the device and the spray gun are suitable for the pressure generated in the device.</li> <li>→ Ensure that the following information can be seen on the high-pressure hose:             <ul style="list-style-type: none"> <li>- Manufacturer</li> <li>- Permissible operating pressure</li> <li>- Date of manufacture</li> </ul> </li> </ul> |

### 6.1.5 GROUNDING THE SYSTEM

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <div data-bbox="427 533 726 593"> <b>WARNING</b></div> <div data-bbox="427 607 1177 672"><b>Discharge of electrostatically charged components in atmospheres containing solvents!</b></div> <div data-bbox="427 674 1002 701">Risk of explosion from electrostatic sparks or flames.</div> <div data-bbox="427 734 877 795"><ul style="list-style-type: none"><li>→ Ground all device components.</li><li>→ Ground the work pieces to be coated.</li></ul></div> |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <div data-bbox="427 907 726 967"> <b>WARNING</b></div> <div data-bbox="427 981 954 1008"><b>Heavy paint mist if grounding is insufficient!</b></div> <div data-bbox="427 1010 833 1075">Danger of poisoning.<br/>Insufficient paint application quality.</div> <div data-bbox="427 1108 882 1169"><ul style="list-style-type: none"><li>→ Ground all device components.</li><li>→ Ground the work pieces to be coated.</li></ul></div> |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

A conductive connection (equipotential bonding cable) must be established between original bundles and the equipment.

## 6.2 LACQUER PREPARATIONS

The viscosity of the lacquer is of great importance. The best results are obtained with lacquers of between 80 and 150 mPas.

Processing of up to 260 mPas is generally possible without problems if high coating thicknesses are required. It is important for the optimum coating quality that the paint temperature is kept constant during coating.

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

### 6.2.1 VISCOSITY CONVERSION TABLE

| milli Pascal x<br>x<br>Sec mPas | Centipoise | Poise | DIN Cup<br>4 mm<br>0.16 inch | Ford Cup 4 | Zahn 2 |
|---------------------------------|------------|-------|------------------------------|------------|--------|
| 10                              | 10         | 0.1   |                              | 5          | 16     |
| 15                              | 15         | 0.15  |                              | 8          | 17     |
| 20                              | 20         | 0.2   |                              | 10         | 18     |
| 25                              | 25         | 0.25  | 14                           | 12         | 19     |
| 30                              | 30         | 0.3   | 15                           | 14         | 20     |
| 40                              | 40         | 0.4   | 17                           | 18         | 22     |
| 50                              | 50         | 0.5   | 19                           | 22         | 24     |
| 60                              | 60         | 0.6   | 21                           | 26         | 27     |
| 70                              | 70         | 0.7   | 23                           | 28         | 30     |
| 80                              | 80         | 0.8   | 25                           | 31         | 34     |
| 90                              | 90         | 0.9   | 28                           | 32         | 37     |
| 100                             | 100        | 1     | 30                           | 34         | 41     |
| 120                             | 120        | 1.2   | 33                           | 41         | 49     |
| 140                             | 140        | 1.4   | 37                           | 45         | 58     |
| 160                             | 160        | 1.6   | 43                           | 50         | 66     |
| 180                             | 180        | 1.8   | 46                           | 54         | 74     |
| 200                             | 200        | 2     | 49                           | 58         | 82     |
| 220                             | 220        | 2.2   | 52                           | 62         |        |
| 240                             | 240        | 2.4   | 56                           | 65         |        |
| 260                             | 260        | 2.6   | 62                           | 68         |        |
| 280                             | 280        | 2.8   | 65                           | 70         |        |
| 300                             | 300        | 3     | 70                           | 74         |        |
| 320                             | 320        | 3.2   |                              |            |        |
| 340                             | 340        | 3.4   |                              |            |        |
| 360                             | 360        | 3.6   | 80                           |            |        |
| 380                             | 380        | 3.8   |                              |            |        |
| 400                             | 400        | 4     | 90                           |            |        |

## 6.3 COMMISSIONING

### 6.3.1 GENERAL RULES FOR HANDLING THE SPRAY GUN

→ Observe safety instructions in Chapter 4.

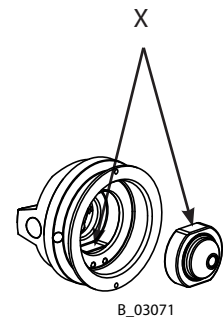
The following rules must be observed before all work on the device, in the event of work interruptions and functional faults:

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  <b>WARNING</b>                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                   | <p><b>Unintentional putting into operation!</b><br/>Risk of injury.</p> <p>Before any work on the device, in the event of work interruptions and malfunctions:</p> <ul style="list-style-type: none"> <li>→ Switch off the energy/compressed air supply.</li> <li>→ Relieve the pressure from the spray gun and device.</li> <li>→ Secure the spray gun against actuation.</li> <li>→ In the event of functional faults: Identify and correct the problem, proceed as described in "Troubleshooting" chapter.</li> </ul> |

|                                                                                                                                                                                                                                          |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>NOTICE</b>                                                                                                                                                                                                                            |  |
| <p><b>Cleaning agent in air duct!</b><br/>Functional faults.</p> <p>→ When cleaning, always operate the spray gun with at least 0.05 MPa; 0.5 bar; 7.25 psi shaping air. No cleaning agent should be allowed to enter the air ducts.</p> |  |

### 6.3.2 PREPARATIONS FOR STARTING UP

1. Mount the spray gun on the reciprocator.
2. Connect product hoses (supply and return) to spray gun and product supply system.
3. Fit nozzle on nozzle seal. Fit air cap over nozzle. Note the flattened parts (X) on the nozzle and in the air cap. Fit the air union nut and tighten by hand.
4. Connect control air hose and atomizing air hose to spray gun and to oil-free, dry air supply.
5. Visually check the permissible pressures for all the equipment components.
6. Make sure that the device and all other conductive parts within the work area are grounded.
7. Set operating pressure to 10 MPa; 100 bar; 1450 psi and use a suitable medium to check no connections are leaking.
8. Relieve spray gun and device pressure.



## 7 OPERATION

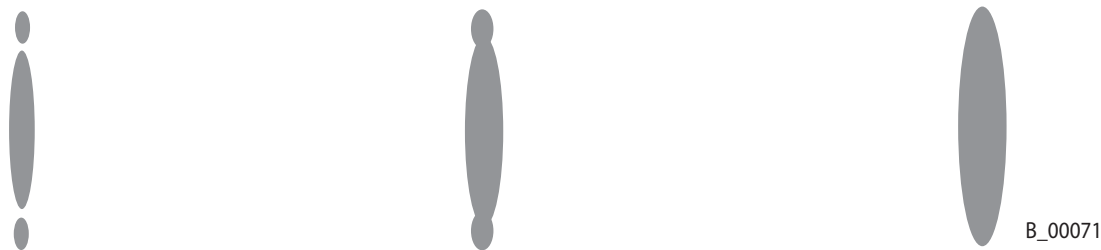
### 7.1 START-UP FOR AIRCOAT SPRAYING

1. Set product supply to operating pressure of approx. 8 MPa; 80 bar; 1160 psi and start up.
2. Spray (release control air) and check the atomization.
3. Set the spray pressure on the product supply such that optimum product atomization is attained.
4. Open air pressure regulator for atomizing air and set.
5. Adjust the amount of air at the compressed air regulator for shaping air until the optimum spraying picture is reached. The relation between spray pattern and shaping air / atomizing air is shown in the illustration below.

**Note:**

Repeat points 4 and 5 until the optimum spray pattern is reached (iterative process).

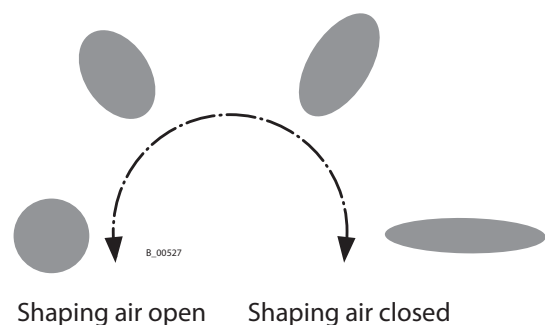
#### Spray pattern shapes



No shaping air/atomizing air    Too little shaping air/atomizing air    Correct amount of shaping air/atomizing air

### 7.2 ADJUSTING SPRAY PATTERN

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



**Note:**

The amount of product can be changed by:

- changing the product pressure or
- using a different flat jet nozzle. See accessories.

**7.3 CHANGING AIRCOAT NOZZLE****NOTICE****Defective AirCoat nozzle!**

Insufficient paint application quality.

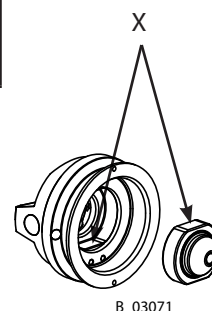
→ Do not use sharp-edged objects to treat carbide on the AirCoat nozzle.

**NOTICE****Defective nozzle seal!**

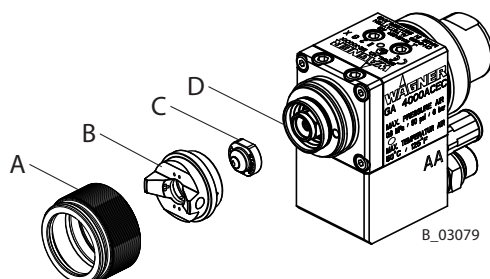
Product sprays into the air cap next to the nozzle.  
Risk of contamination.

→ Do not clean the nozzle seal with sharp-edged objects.  
→ Replace the nozzle seal if the sealing surface is damaged.

1. Relieve the pressure of gun and device.
2. Secure gun (remove the control air hose).
3. Unscrew union nut (A).
4. Remove air cap (B).
5. Press AirCoat nozzle (C) out of air cap (B) by hand and treat with cleaning agent until all remaining paint has been dissolved.
6. **Assembly:**  
Fit AirCoat nozzle (C) in nozzle seal (D).
7. Fit air cap (B) over nozzle (C). Note the flattened parts (X) on the nozzle and in the air cap.
8. Screw on union nut (A) and tighten by hand.



B\_03071



B\_03079

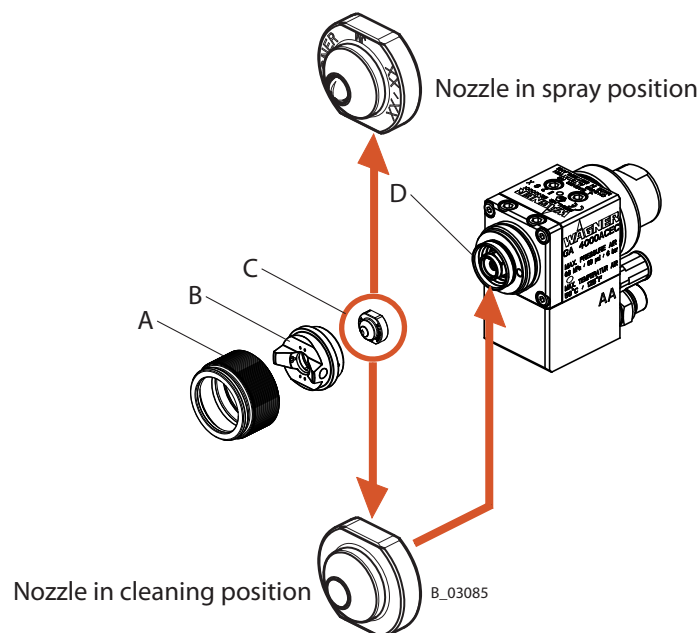
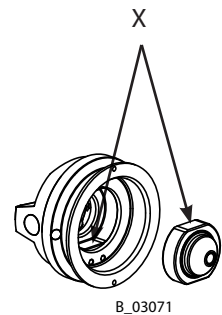
**7.4 CLEANING AIRCOAT NOZZLE**

To disassemble and assemble AirCoat nozzles, see section 7.3.

The AirCoat nozzle (C) can be placed into a cleaning solution which has been recommended by the paint manufacturer.

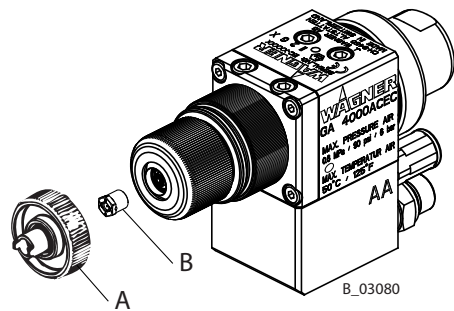
**7.5 ELIMINATING NOZZLE CLOGGING**

1. Relieve the pressure of gun and device.
2. Secure gun (remove the control air hose).
3. Unscrew union nut (A).
4. Remove air cap (B).
5. Push AirCoat nozzle (C) out of air cap (B) by hand and place on nozzle seal (D) the other way round with the nozzle tip towards the rear.
6. Refit air cap (B) on nozzle (C). Note the flattened parts (X) on the nozzle and in the air cap.
7. Fit union nut (A) over air cap (B) on spray gun and tighten by hand.
8. Switch the product pressure back on.
9. Spray (connect control air hose).
10. When the blockage has been flushed out, switch off the spray gun.
11. Relieve the pressure of gun and device.
12. Secure gun (remove the control air hose).
13. Unscrew union nut (A).
14. Remove air cap (B) and push AirCoat nozzle (C) out by hand. Clean nozzle and nozzle seal and refit nozzle in spraying position on nozzle seal (D).
15. Refit air cap (B) on nozzle (C). Note the flattened parts (X) on the nozzle and in the air cap.
16. Fit union nut (A) over air cap (B) on spray gun and tighten by hand.
17. Connect control air. Switch the product pressure and the air pressure back on.



## 7.6 REPLACING NOZZLE INSERT OF ROUND JET NOZZLE

1. Relieve the pressure of gun and device.
2. Secure gun (remove the control air hose).
3. Remove nozzle insert (B) with nozzle spanner (A).
4. Fit new nozzle insert in reverse order (see chapter 9.4).

**Note:**

Flush if round jet nozzle is clogged.

1. Use nozzle spanner (A) to loosen nozzle insert (B) by a half turn.
2. Remove the nozzle spanner and press the gun briefly.
3. After flushing the nozzle, re-tighten the nozzle insert.

## 8 TROUBLESHOOTING AND RECTIFICATION

| Functional fault                                               | Cause                                                    | Remedy                                                                 |
|----------------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------------------|
| Insufficient product output.                                   | Nozzle too small.                                        | Select larger nozzle (see chapter 10.1).                               |
|                                                                | Product pressure too low.                                | Increase product pressure.                                             |
|                                                                | Nozzle is clogged.                                       | Nozzle cleaning (see chapter 7.5).                                     |
|                                                                | The valve rod path is too short.                         | Increase the control air pressure.<br>Replace the valve rod.           |
| Poor spray pattern.                                            | Atomizing air incorrectly adjusted.                      | Reset atomizing air (see chapter 7.1).                                 |
|                                                                | Nozzle is too large.                                     | Select a smaller nozzle (see chapter 10.1).                            |
|                                                                | Product pressure too low.                                | Increase the product pressure at pump.                                 |
|                                                                | The spray product viscosity is too high.                 | Thin spray product in accordance with the manufacturer's instructions. |
|                                                                | The nozzle is partially clogged.                         | Nozzle cleaning (see chapter 7.5).                                     |
|                                                                | Incorrectly set shaping air.                             | Reset shaping air.                                                     |
|                                                                | The drilled holes in the air cap are damaged or clogged. | Clean or replace the air cap.                                          |
| Air valve leaks / air leaks.                                   | Air valve seals are leaky.                               | Replace air valve seal (see chapter 9.3).                              |
|                                                                |                                                          |                                                                        |
| Packing leaking.                                               | Pretension is too low.                                   | Replace packing.                                                       |
| Spray gun will not shut-off correctly / product valve leaking. | The valve seat or the valve ball is damaged.             | Replace the parts.                                                     |

## 9 CLEANING AND MAINTENANCE

→ Observe safety instructions in Chapter 4.

1. The spray gun and the unit must be cleaned and flushed daily. The cleaning agent used for cleaning must be suitable for the coating product.
2. Check hoses, pipes, and couplings every day and replace if necessary.

→ In accordance with the guideline for liquid ejection devices (ZH 1/406 and BGR 500 Part 2 Chapter 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.
- If devices have been decommissioned, the examination can be suspended until the next 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 cleaning agent.

### NOTICE

#### **Flushing agent in the air duct!**

Functional faults caused by swollen seals.

→ Never immerse the spray gun in cleaning agent.



### WARNING

#### **Incorrect maintenance/repair!**

Risk of injury and equipment damage.

- Have repairs and part replacements be carried out only by specially trained staff or a WAGNER service center.
- Before all work on the device and in the event of work interruptions:
  - Switch off the energy/compressed air supply.
  - Relieve the pressure from the spray gun and device.
  - Secure the spray gun against actuation.
- Observe the operating manual and service instructions at all times when carrying out work.

**9.1 DECOMMISSIONING AND CLEANING****NOTICE****Cleaning agent in air duct!**

Functional faults.

- When cleaning, always operate the spray gun at at least 0.05 MPa; 0.5 bar; 7.25 psi shaping air. No cleaning agent should be allowed to enter the air ducts.

**DANGER****Exploding gas / air mixture!**

Danger to life from flying parts and burns.

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

**WARNING****Explosive atmosphere!**

Explosive gases are produced when aluminum comes into contact with halogenized hydrocarbons.

- To clean aluminum, do not use liquids containing halogenized hydrocarbons.

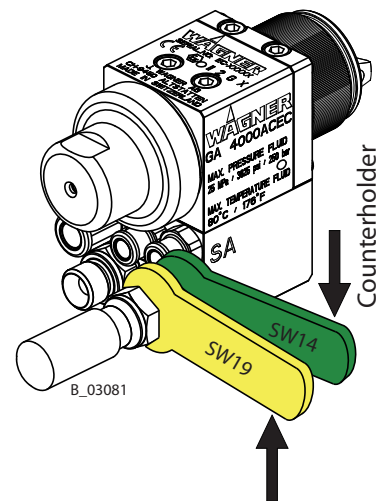
1. Relieve the pressure of gun and device.
2. Secure gun (remove the control air hose).
3. Connect the cleaning agent supply.
4. Dismount AirCoat nozzle and clean separately (see chapter 7.3).
5. Pressurize the cleaning agent supply to a maximum pressure of 4 MPa; 40 bar; 580 psi and thoroughly flush the spray gun.
6. Relieve the pressure from gun and unit!
7. Secure gun (remove the control air hose).
8. Clean outside of spray gun with a cleaning agent recommended by the lacquer manufacturer and dry with a cloth or blow gun.

## 9.2 REPLACING PRODUCT HOSE

The service life of the fluid hoses is reduced due to environmental influences even when handled correctly.

- Check hoses, pipes, and couplings every day and replace if necessary.
- As a precaution, fluid hoses should be replaced after a period specified by the operator.

1. Decommissioning work and cleaning.
2. Relieve the pressure of gun and device.
3. Secure gun (remove the control air hose).
4. Place open-ended wrench size 14 mm; 0.55 inch on flats of product connection and counterhold.
5. Turn nut to the right with open-ended wrench size 19 mm; 0.75 inch and unscrew product hose.
6. **Assembly:**  
Fit product hose by hand and tighten with 2 open-ended wrenches.



## 9.3 REPLACING THE NOZZLE SEAL

### NOTICE

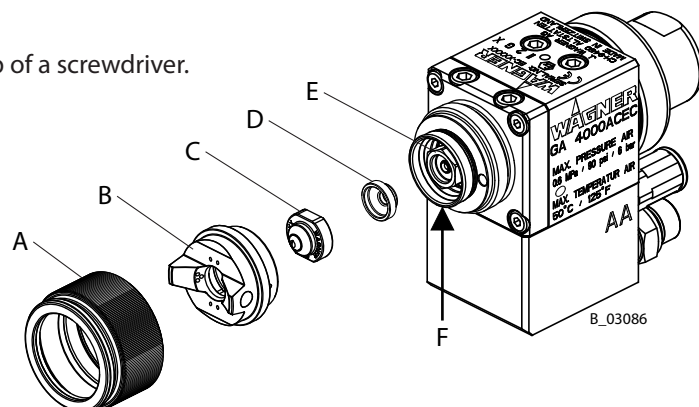
**Shaping air and atomizer air not separate!**

Poor spray pattern.

Spray jet cannot be adjusted.

- Treat the distributor seal (F) with care.

1. Decommissioning work and cleaning.
2. Relieve the pressure of gun and device.
3. Secure gun (remove the control air hose).
4. Unscrew union nut (A).
5. Remove air cap (B) and nozzle (C).
6. Release the nozzle seal (D) with the help of a screwdriver.
7. Fit new nozzle seal to valve housing (E).
8. Assemble in reverse order.

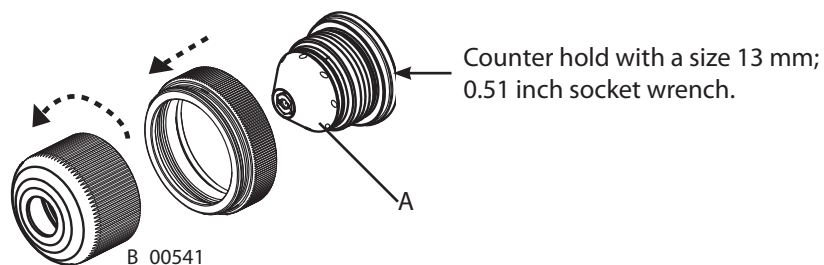
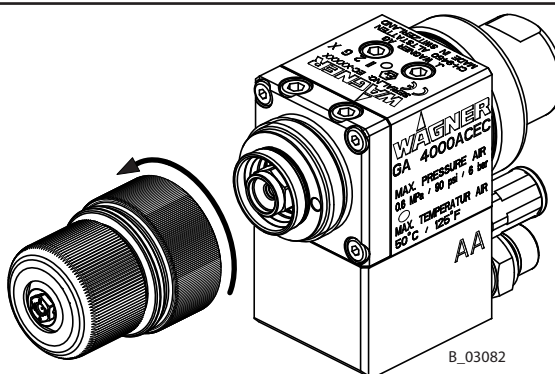


**9.4 REPLACING SEALING FITTING OF ROUND JET NOZZLE****NOTICE****Defective nozzle body!**

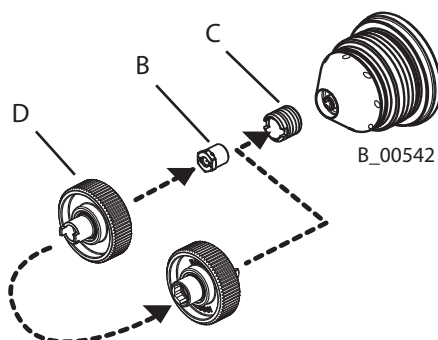
Poor spray pattern.

→ Handle the nozzle body (A) with care.

Unscrew the nozzle by hand.



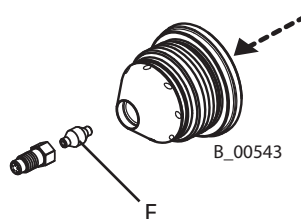
Nozzle wrench (D)  
order no. 128901.



Eject with 1.5 mm; 0.06 inch diameter pin.

**Note:**

The sealing fitting (E) can be pulled out of the nozzle body using a small eye wood bolt.



**9.5 REPLACING PARTS IN GUN BODY****9.5.1 DISASSEMBLY OF GA 4000ACEC****NOTICE****Defective plunger shaft!**

Packing leaking.

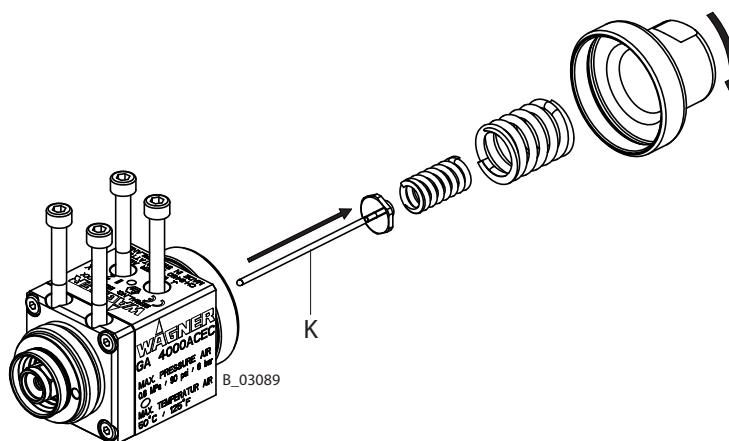
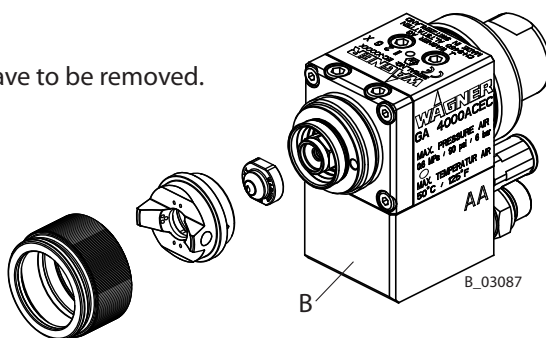
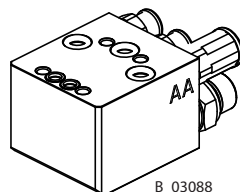
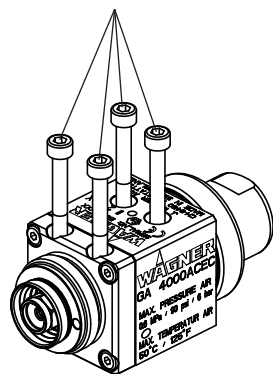
Greater wear on the packing.

- Handle the plunger shaft (K) with care.  
The plunger shaft has the function of a sliding surface.

**Note:**

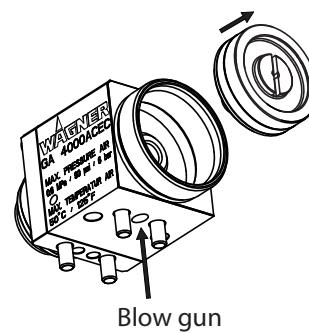
The complete base plate (B) does not have to be removed.

M5 wrench size 3 mm; 0.12 inch

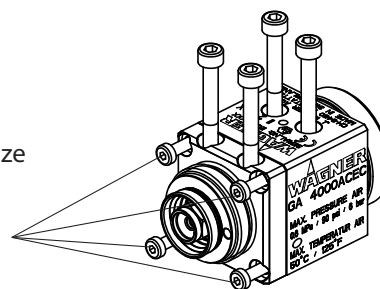
**Note:**

Circulation mode without lock pin.





M5 wrench size  
3; 0.12 inch

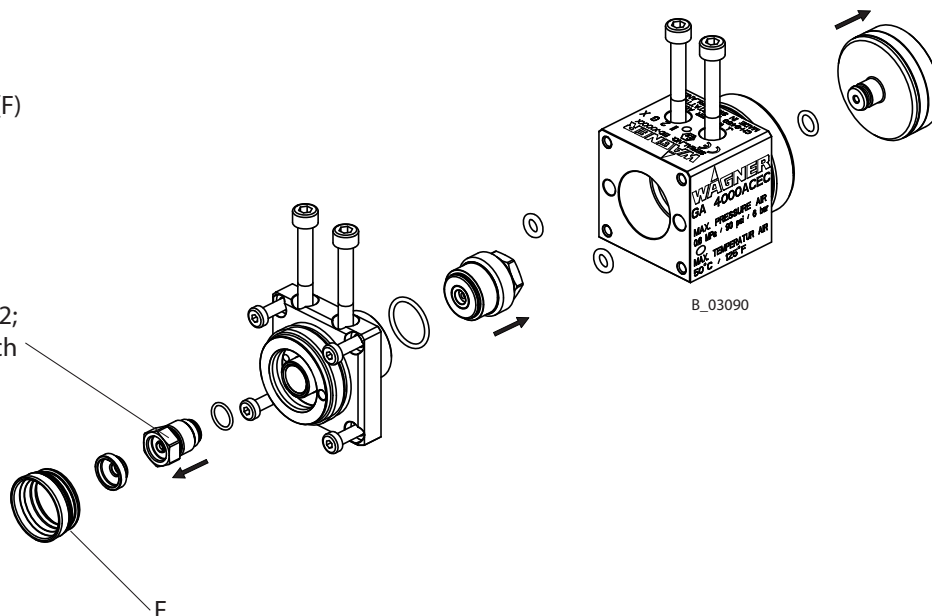
**Note:**

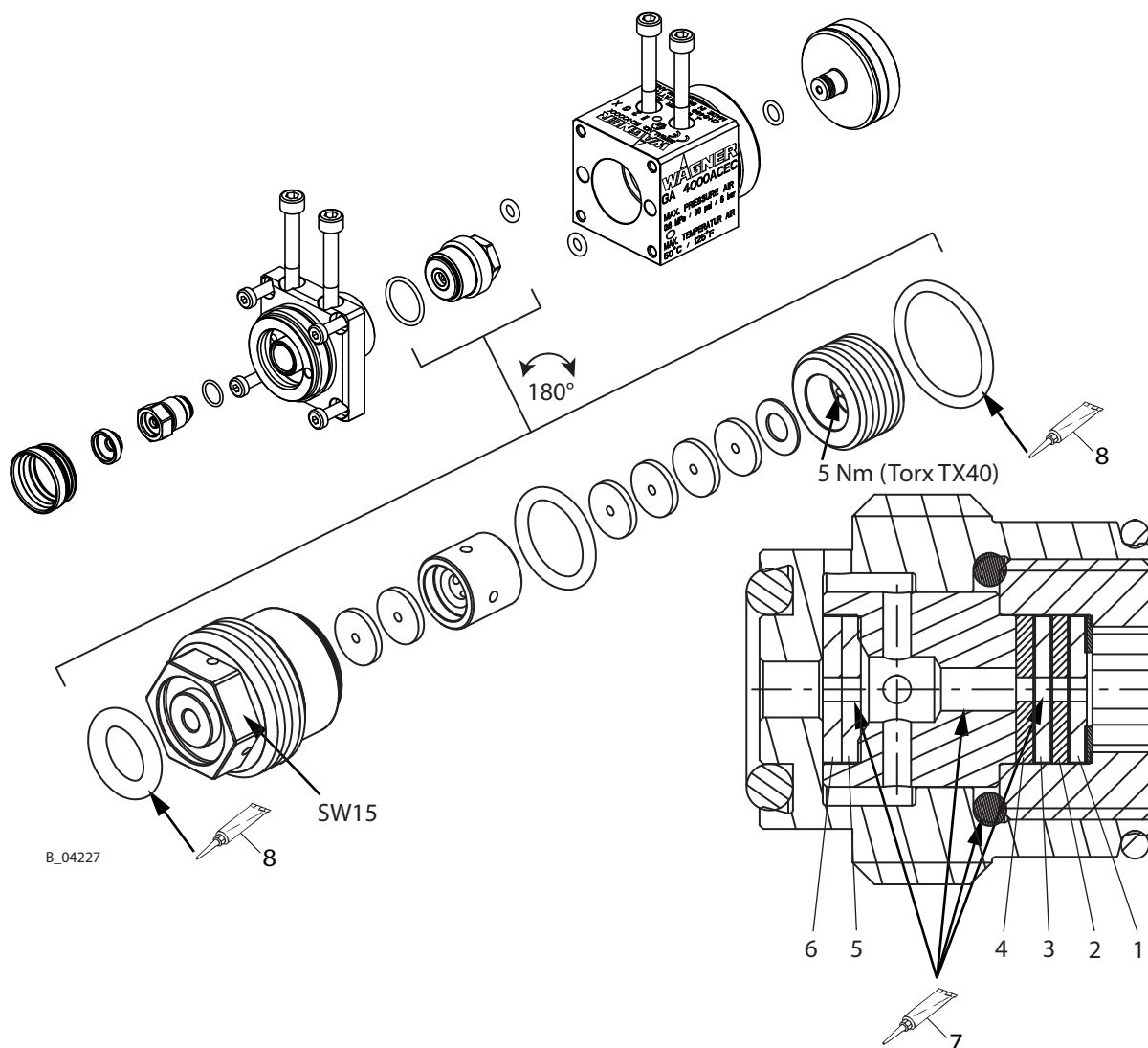
Stuck components can be pushed out with a drift 3 mm; 0.12 inch in diameter.

**Note:**

Pull out distributor seal (F) using pliers.

Wrench size 12;  
0.47 inch



**9.5.2 PACKING INSERT GA 4000AC (RP)****Order of seals:**

1) Sealing set GA4000 packing RP: order number 2339140

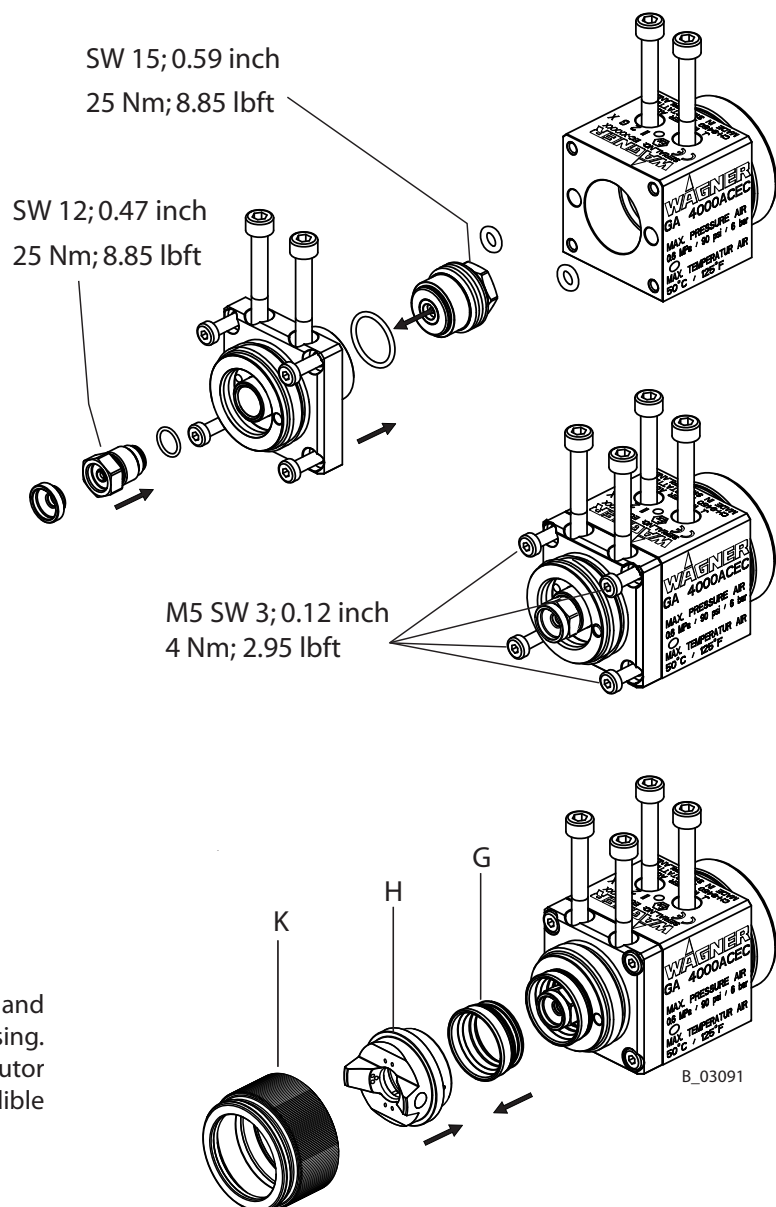
| Pos | Material            | Order No. | Order No. (set of 12 packings) |
|-----|---------------------|-----------|--------------------------------|
| 1   | PTFE + GF           | -         | 2339141                        |
| 2   | PE                  | -         | 2339142                        |
| 3   | PTFE + GF           | -         | 2339141                        |
| 4   | PE                  | -         | 2339142                        |
| 5   | PTFE + GF           | -         | 2339141                        |
| 6   | PTFE + GF           | -         | 2339141                        |
| 7   | Mobilux EP 2 grease | 9998808   | -                              |
| 8   | Vaseline white      | 9992698   | -                              |

2) Sealing set GA4000 packing RP special: order number 2339810

| Pos | Material            | Order No. | Order No. (set of 12 packings) |
|-----|---------------------|-----------|--------------------------------|
| 1   | PTFE                | -         | 2339143                        |
| 2   | PE                  | -         | 2339142                        |
| 3   | PTFE                | -         | 2339143                        |
| 4   | PE                  | -         | 2339142                        |
|     |                     |           |                                |
| 5   | PTFE + GF           | -         | 2339141                        |
| 6   | PTFE + GF           | -         | 2339141                        |
| 7   | Mobilux EP 2 grease | 9998808   | -                              |
| 8   | Vaseline white      | 9992698   | -                              |

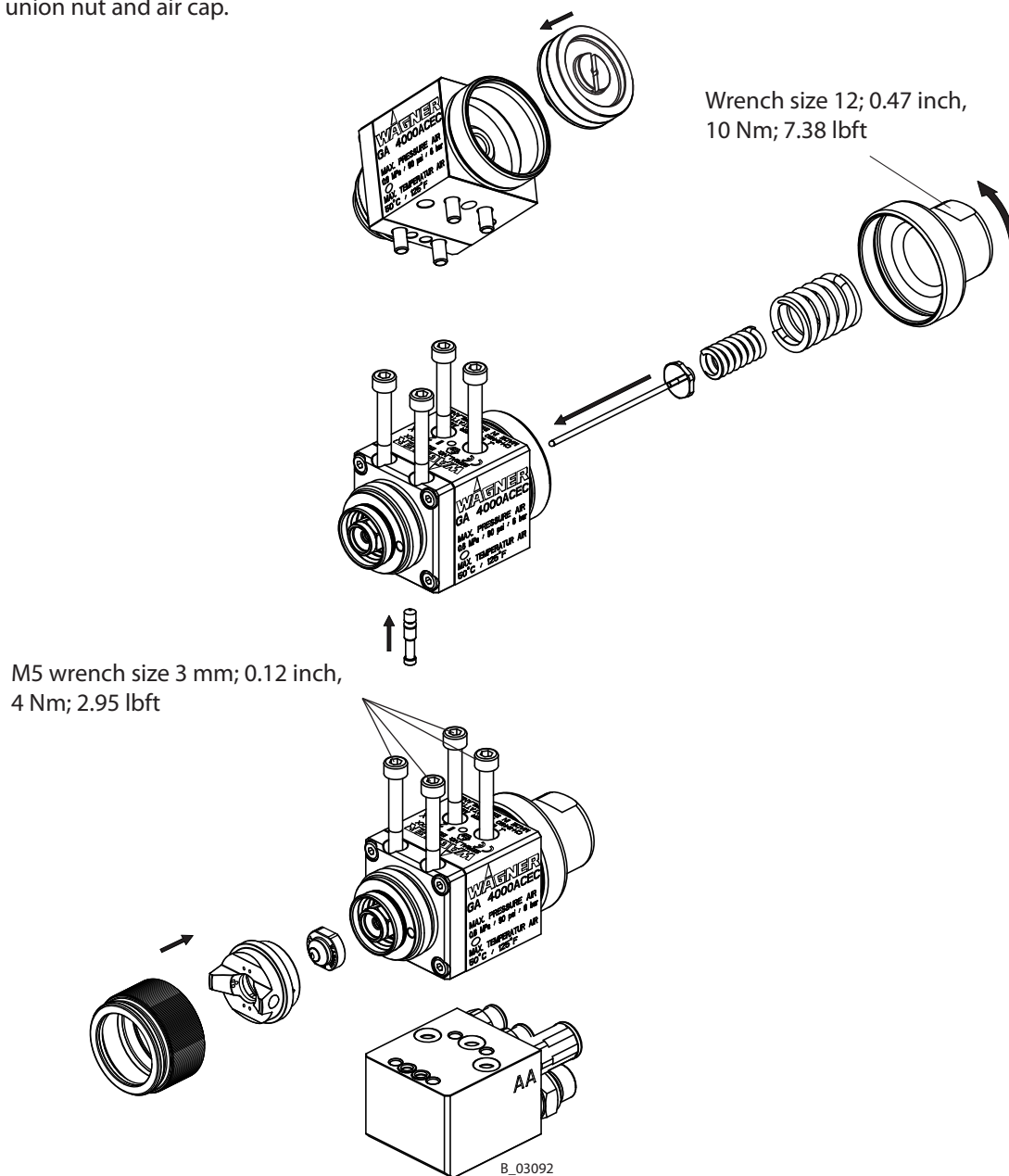
**9.5.3 ASSEMBLY OF GA 4000ACEC****General note:**

Lightly greased o-rings and sliding surfaces with vaseline white PHV II.

**Note:**

Put distributor seal (G) on air cap (H) and place seal and air cap in gun housing. Screw union nut (K) in until the distributor seal ring catches in the groove (audible click).

Dismount union nut and air cap.



## 10 ACCESSORIES

### 10.1 AIRCOAT NOZZLES ACF3000



R 00021

| Order No. | Marking | Drilled hole Ø<br>inch; mm | Spray angle | Application                              |
|-----------|---------|----------------------------|-------------|------------------------------------------|
| 379107    | 07/10   | 0.007-0.18                 | 10°         | Natural lacquer                          |
| 379207    | 07/20   | 0.007-0.18                 | 20°         |                                          |
| 379209    | 09/20   | 0.009-0.23                 | 20°         | Clear lacquer<br>Oils                    |
| 379309    | 09/30   | 0.009-0.23                 | 30°         |                                          |
| 379409    | 09/40   | 0.009-0.23                 | 40°         |                                          |
| 379509    | 09/50   | 0.009-0.23                 | 50°         |                                          |
| 379609    | 09/60   | 0.009-0.23                 | 60°         |                                          |
| 379111    | 11/10   | 0.011-0.28                 | 10°         | Synthetic resin lacquer<br>PVC lacquer   |
| 379211    | 11/20   | 0.011-0.28                 | 20°         |                                          |
| 379311    | 11/30   | 0.011-0.28                 | 30°         |                                          |
| 379411    | 11/40   | 0.011-0.28                 | 40°         |                                          |
| 379511    | 11/50   | 0.011-0.28                 | 50°         |                                          |
| 379611    | 11/60   | 0.011-0.28                 | 60°         |                                          |
| 379113    | 13/10   | 0.013-0.33                 | 10°         | Lacquer<br>Base coat<br>Primer<br>Filler |
| 379213    | 13/20   | 0.013-0.33                 | 20°         |                                          |
| 379313    | 13/30   | 0.013-0.33                 | 30°         |                                          |
| 379413    | 13/40   | 0.013-0.33                 | 40°         |                                          |
| 379513    | 13/50   | 0.013-0.33                 | 50°         |                                          |
| 379613    | 13/60   | 0.013-0.33                 | 60°         |                                          |
| 379813    | 13/80   | 0.013-0.33                 | 80°         |                                          |
| 379115    | 15/10   | 0.015-0.38                 | 10°         | Filler<br>Rust proofing paints           |
| 379215    | 15/20   | 0.015-0.38                 | 20°         |                                          |
| 379315    | 15/30   | 0.015-0.38                 | 30°         |                                          |
| 379415    | 15/40   | 0.015-0.38                 | 40°         |                                          |
| 379515    | 15/50   | 0.015-0.38                 | 50°         |                                          |
| 379615    | 15/60   | 0.015-0.38                 | 60°         |                                          |
| 379815    | 15/80   | 0.015-0.38                 | 80°         |                                          |
| 379217    | 17/20   | 0.017-0.43                 | 20°         | Rust proofing paints<br>Latex paints     |
| 379317    | 17/30   | 0.017-0.43                 | 30°         |                                          |
| 379417    | 17/40   | 0.017-0.43                 | 40°         |                                          |
| 379517    | 17/50   | 0.017-0.43                 | 50°         |                                          |
| 379617    | 17/60   | 0.017-0.43                 | 60°         |                                          |
| 379817    | 17/80   | 0.017-0.43                 | 80°         |                                          |

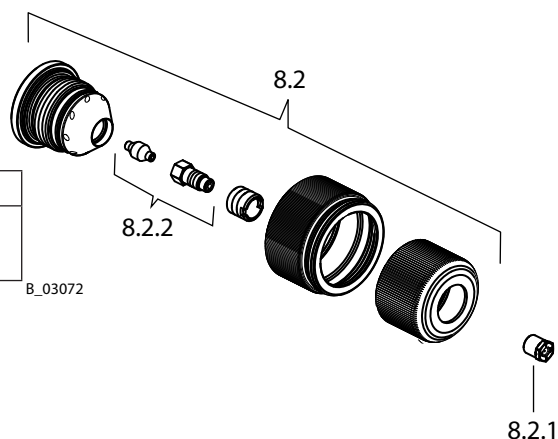


B 00021

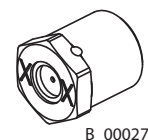
| Order No. | Marking | Drilled hole Ø<br>inch; mm | Spray angle | Application                                                            |
|-----------|---------|----------------------------|-------------|------------------------------------------------------------------------|
| 379219    | 19/20   | 0.019-0.48                 | 20°         | Rust proofing paints<br>Latex paints                                   |
| 379319    | 19/30   | 0.019-0.48                 | 30°         |                                                                        |
| 379419    | 19/40   | 0.019-0.48                 | 40°         |                                                                        |
| 379519    | 19/50   | 0.019-0.48                 | 50°         |                                                                        |
| 379619    | 19/60   | 0.019-0.48                 | 60°         |                                                                        |
| 379819    | 19/80   | 0.019-0.48                 | 80°         |                                                                        |
| 379221    | 21/20   | 0.021-0.53                 | 20°         | Mica paints<br>Zinc rich paints<br>Rust proofing paints<br>Glue paints |
| 379421    | 21/40   | 0.021-0.53                 | 40°         |                                                                        |
| 379521    | 21/50   | 0.021-0.53                 | 50°         |                                                                        |
| 379621    | 21/60   | 0.021-0.53                 | 60°         |                                                                        |
| 379821    | 21/80   | 0.021-0.53                 | 80°         |                                                                        |
| 379423    | 23/40   | 0.023-0.58                 | 40°         |                                                                        |
| 379623    | 23/60   | 0.023-0.58                 | 60°         |                                                                        |
| 379823    | 23/80   | 0.023-0.58                 | 80°         |                                                                        |
| 379425    | 25/40   | 0.025-0.64                 | 40°         |                                                                        |
| 379625    | 25/60   | 0.025-0.64                 | 60°         |                                                                        |
| 379825    | 25/80   | 0.025-0.64                 | 80°         |                                                                        |
| 379427    | 27/40   | 0.027-0.69                 | 40°         |                                                                        |
| 379627    | 27/60   | 0.027-0.69                 | 60°         |                                                                        |
| 379827    | 27/80   | 0.027-0.69                 | 80°         |                                                                        |
| 379429    | 29/40   | 0.029-0.75                 | 40°         |                                                                        |
| 379629    | 29/60   | 0.029-0.75                 | 60°         |                                                                        |
| 379829    | 29/80   | 0.029-0.75                 | 80°         |                                                                        |
| 379431    | 31/40   | 0.031-0.79                 | 40°         |                                                                        |
| 379531    | 31/60   | 0.031-0.79                 | 60°         |                                                                        |
| 379631    | 31/80   | 0.031-0.79                 | 80°         |                                                                        |
| 379435    | 35/40   | 0.035-0.90                 | 40°         |                                                                        |
| 379635    | 35/60   | 0.035-0.90                 | 60°         |                                                                        |
| 379835    | 35/80   | 0.035-0.90                 | 80°         |                                                                        |

**10.2 ROUND JET NOZZLE CAP**

| Order No. | Designation                                     |
|-----------|-------------------------------------------------|
| 394180    | Round jet nozzle cap<br>(without nozzle insert) |

**10.2.1 NOZZLE INSERTS RXX**

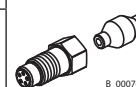
| Order No. | Designation       | Marking | Jet ø **          |
|-----------|-------------------|---------|-------------------|
| 132720    | Nozzle insert R11 | 11      | Approx. 250; 9.84 |
| 132721    | Nozzle insert R12 | 12      | Approx. 250; 9.84 |
| 132722    | Nozzle insert R13 | 13      | Approx. 250; 9.84 |
| 132723    | Nozzle insert R14 | 14      | Approx. 250; 9.84 |
| 132724    | Nozzle insert R15 | 15      | Approx. 250; 9.84 |
| 132725    | Nozzle insert R16 | 16      | Approx. 250; 9.84 |
| 132726    | Nozzle insert R17 | 17      | Approx. 250; 9.84 |
| 132727    | Nozzle insert R18 | 18      | Approx. 250; 9.84 |
| 132728    | Nozzle insert R19 | 19      | Approx. 250; 9.84 |
| 132729    | Nozzle insert R20 | 20      | Approx. 250; 9.84 |
| 132730    | Nozzle insert R21 | 21      | Approx. 250; 9.84 |
| 132731    | Nozzle insert R22 | 22      | Approx. 250; 9.84 |



\*\* Jet width in mm at a distance of approx. 30 cm from the object and at a pressure of 10 MPa; 100 bar; 1450 psi, synthetic resin paint, 20 DIN4 seconds.

**10.2.2 COMPLETE NOZZLE SCREW JOINT**

| Order No. | Designation                  |
|-----------|------------------------------|
| 132922    | Nozzle screw joint, complete |

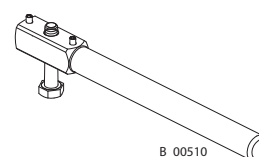


**10.3 HOSES**

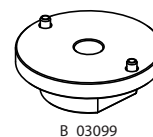
| Order No. | Designation                                                                                            |
|-----------|--------------------------------------------------------------------------------------------------------|
| 9984405   | High-pressure hose M16x1.5, DN 4 mm; ID 0.16 inch, 1 m; 3.28 ft, 27 MPa; 270 bar; 3916 psi             |
| 9984507   | High-pressure hose M16x1.5, DN 6 mm; ID 0.24 inch, 15 m; 49.21 ft, 27 MPa; 270 bar; 3916 psi           |
| 9984510   | High-pressure hose M16x1.5, DN 4 mm; ID 0.16 inch, 7.5 m; 24.61 ft, 27 MPa; 270 bar; 3916 psi          |
| 9984573   | High-pressure hose NPSM1/4", DN 4 mm; ID 0.16 inch, 7.5 m; 24.61 ft, 27 MPa; 270 bar; 3916 psi         |
| 9984574   | High-pressure hose NPSM1/4", DN 6 mm; ID 0.24 inch, 15 m; 49.21 ft, 27 MPa; 270 bar; 3916 psi          |
| 9982035   | Air hose, red, outer diameter 6 mm; 0.24 inch / inner diameter 4 mm; 0.16 inch, polyamide, per meter   |
| 9982061   | Air hose, blue, outer diameter 6 mm; 0.24 inch, inner diameter 4 mm; 0.16 inch, polyamide, per meter   |
| 9982033   | Air hose, green, outer diameter 6 mm; 0.24 inch, inner diameter 4 mm; 0.16 inch, polyamide, per meter  |
| 9982062   | Air hose, blue, outer diameter 8 mm; 0.32 inch, inner diameter 5.5 mm; 0.22 inch, polyamide, per meter |

**10.4 MISCELLANEOUS**

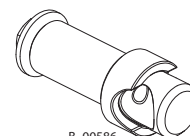
| Order No. | Designation                                                                |
|-----------|----------------------------------------------------------------------------|
| 9997001   | Nozzle cleaning brush                                                      |
| 8612001   | Nozzle cleaning needle set, 12 pieces                                      |
| 123446    | Double fitting M16x1.5 (for extension for product hose)                    |
| 367560    | Double fitting NPSM 1/4" (for extension for product hose)                  |
| 380941    | Standard gun holder 180 mm; diameter 16 mm, 7.1 inch; diameter 0.63 inches |



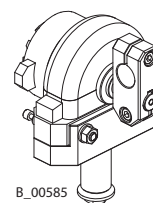
| Order No. | Designation                  |
|-----------|------------------------------|
| 2314079   | Cefla adapter plate          |
| 380942    | Rotary gun holder (standard) |
| 380945    | Rotary holder 40/40/5        |
| 380943    | Complete swivel drive        |
| 380944    | Cross clamp for swivel drive |



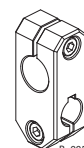
B\_03099



B\_00586



B\_00585



B\_00584

## 11 SPARE PARTS

### 11.1 HOW CAN SPARE PARTS BE ORDERED?

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 lists. 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

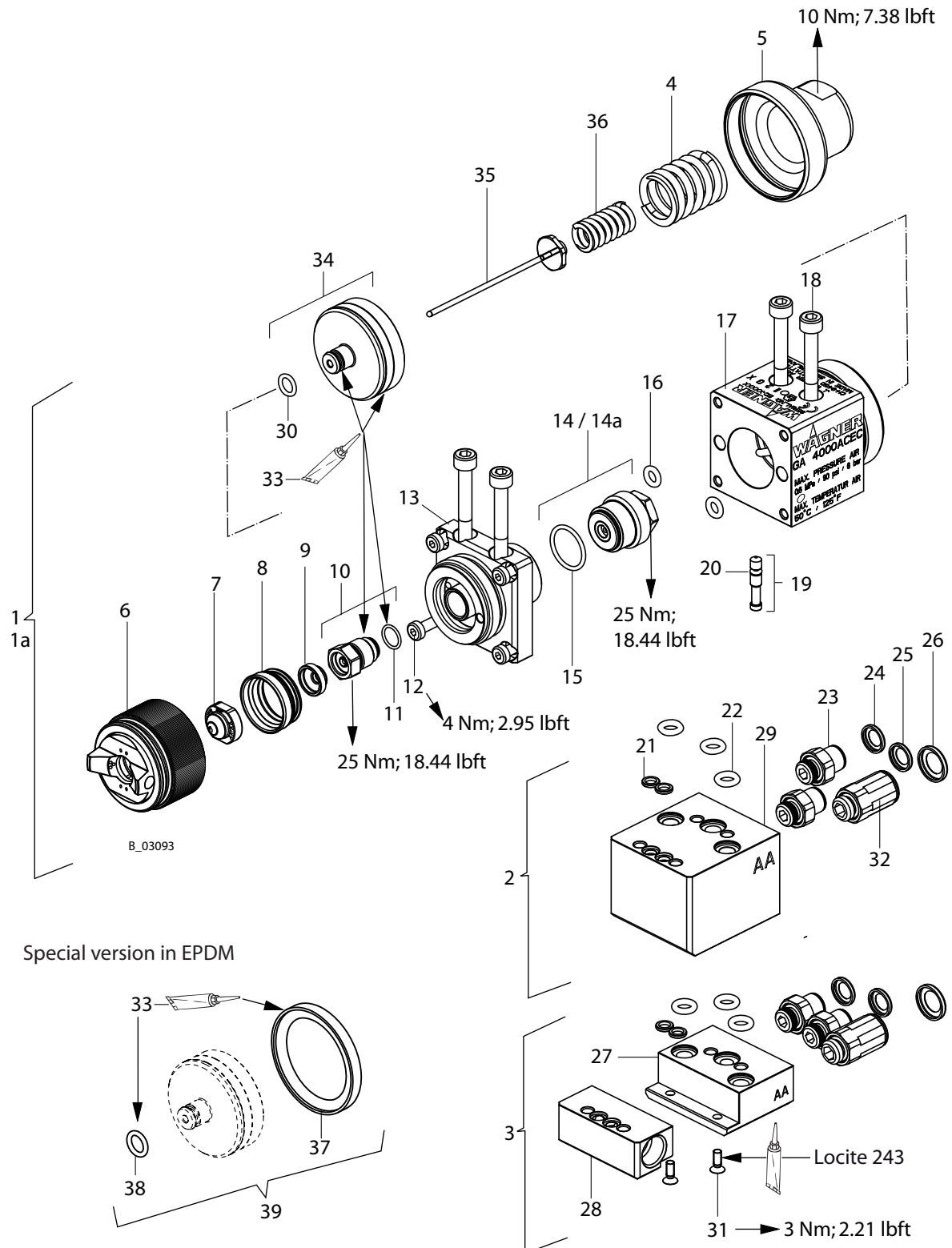
Explanation of column "**K**" (labeling) in the following spare parts lists:

- ◆ Wearing part

**Note:** No liability is assumed for wearing parts.

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

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <div style="border-bottom: 1px solid black; padding-bottom: 5px;">  <b>WARNING</b> </div> <p><b>Incorrect maintenance/repair!</b><br/>Risk of injury and equipment damage.</p> <ul style="list-style-type: none"> <li>→ Have repairs and part replacements be carried out only by specially trained staff or a WAGNER service center.</li> <li>→ Before all work on the device and in the event of work interruptions:             <ul style="list-style-type: none"> <li>- Switch off the energy/compressed air supply.</li> <li>- Relieve the pressure from the spray gun and device.</li> <li>- Secure the spray gun against actuation.</li> </ul> </li> <li>→ Observe the operating manual and service instructions at all times when carrying out work.</li> </ul> |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**11.2 SPARE PARTS LIST FOR GA 4000ACEC**

| Spare parts list |   |                                       | GA 4000ACEC C |           | GA 4000ACEC NC |           |
|------------------|---|---------------------------------------|---------------|-----------|----------------|-----------|
| Pos              | K | Designation                           | Stk           | Order No. | Stk            | Order No. |
| 1                | ◆ | Gun body GA4000ACEC                   | 1             | 2312145   | 1              | 2312145   |
| 1a               | ◆ | Gun body GA 4000ACEC (RP)             | 1             | 2338602   | 1              | 2338602   |
| 2                | ◆ | Ground plate GA 4000ACEC R            | 1             | 2308812   | 1              | 2308812   |
| 3                | ◆ | Base plate GA 4000ACEC side con.      | 1             | 2312146   | 1              | 2312146   |
| 4                | ◆ | Helical spring                        | 1             | 9998991   | 1              | 9998991   |
| 5                |   | End cap short                         | 1             | 2314274   | 1              | 2314274   |
| 6                | ● | Air cap LV plus (red)                 | 1             | 2308808   | 1              | 2308808   |
| 6                | ● | Air cap HV plus (blue)                | 1             | 2308809   | 1              | 2308809   |
| 6                | ● | Air cap LA plus (bronze)              | 1             | 2313493   | 1              | 2313493   |
| 6                | ● | Air cap LV plus (blank)               | 1             | 2340299   | 1              | 2340299   |
| 7                | ● | AC nozzle                             | 1             | 379...    | 1              | 379...    |
| 8                | ◆ | Sealing ring                          | 1             | 394339    | 1              | 394339    |
| 9                | ◆ | Sealing ring nozzle                   | 1             | 364328    | 1              | 364328    |
| 10               | ◆ | Valve housing, complete               | 1             | 2314279   | 1              | 2314279   |
| 11               | ◆ | O-ring                                | 1             | 9974245   | 1              | 9974245   |
| 12               |   | Socket cap screw                      | 4             | 2307893   | 4              | 2307893   |
| 13               |   | Head piece                            | 1             | 2314278   | 1              | 2314278   |
| 14               | ◆ | Standard packing                      | 1             | 2313516   | 1              | 2313516   |
| 14a              | ◆ | Packing insert GA 4000AC (RP)         | 1             | 2338601   | 1              | 2338601   |
| 15               | ◆ | O-ring                                | 1             | 367528    | 1              | 367528    |
| 16               | ◆ | O-ring                                | 2             | 9974153   | 2              | 9974153   |
| 17               |   | Piston housing EC                     | 1             | 2314303   | 1              | 2314303   |
| 18               |   | Socket cap screw                      | 4             | 2308292   | 4              | 2308292   |
| 19               | ● | Complete product channel lock pin     | -             | -         | 1              | 2310534   |
| 20               | ◆ | O-ring                                | -             | -         | 1              | 2307873   |
| 21               | ◆ | Sealing product                       | 2             | 2310473   | 2              | 2310473   |
| 22               | ◆ | O-ring                                | 3             | 9974265   | 3              | 9974265   |
| 23               |   | Straight screw-in fitting             | 2             | 9998090   | 2              | 9998090   |
| 24               |   | Coding ring green                     | 1             | 9998994   | 1              | 9998994   |
| 25               |   | Coding ring red                       | 1             | 9998995   | 1              | 9998995   |
| 26               |   | Coding ring blue                      | 1             | 9998618   | 1              | 9998618   |
| 27               |   | Adapter plate                         | 1             | 2316365   | 1              | 2316365   |
| 28               |   | Product adapter plate                 | 1             | 2316366   | 1              | 2316366   |
| 29               |   | Base plate                            | 1             | 2314246   | 1              | 2314246   |
| 30               | ◆ | O-ring                                | 1             | 248314    | 1              | 248314    |
| 31               |   | Hexagon socket countersunk head screw | 2             | 2310556   | 2              | 2310556   |
| 32               |   | Straight screw-in fitting             | 1             | 9998993   | 1              | 9998993   |
| 33               | ● | Vaseline white PHHV                   | 1             | 9992698   |                |           |

◆ = Wearing part

-&gt; For service sets, see chapter 11.4.

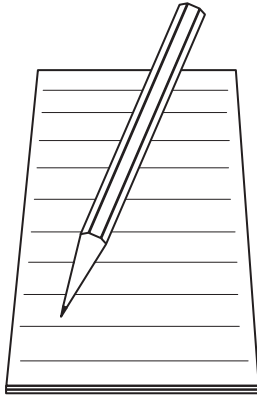
● = Not part of the standard equipment but available as a special accessory.

| Spare parts list |     |                                | GA 4000ACEC C |           | GA 4000ACEC NC |           |
|------------------|-----|--------------------------------|---------------|-----------|----------------|-----------|
| Pos              | K   | Designation                    | Stk           | Order No. | Stk            | Order No. |
| 34               | ◆   | Complete piston EC             | 1             | 2314302   | 1              | 2314302   |
| 35               | ◆   | Complete valve rod EC          | 1             | 2314301   | 1              | 2314301   |
| 36               | ◆   | Helical spring                 | 1             | 2309945   | 1              | 2309945   |
| 37               | ◆ ● | Piston seal EPDM               | 1             | 2322531   | 1              | 2322531   |
| 38               | ◆ ● | O-ring                         | 1             | 9974179   | 1              | 9974179   |
| 39               | ◆ ● | Sealing set GA 4000ACEC (EPDM) | 1             | 2322533   | 1              | 2322533   |

◆ = Wearing part

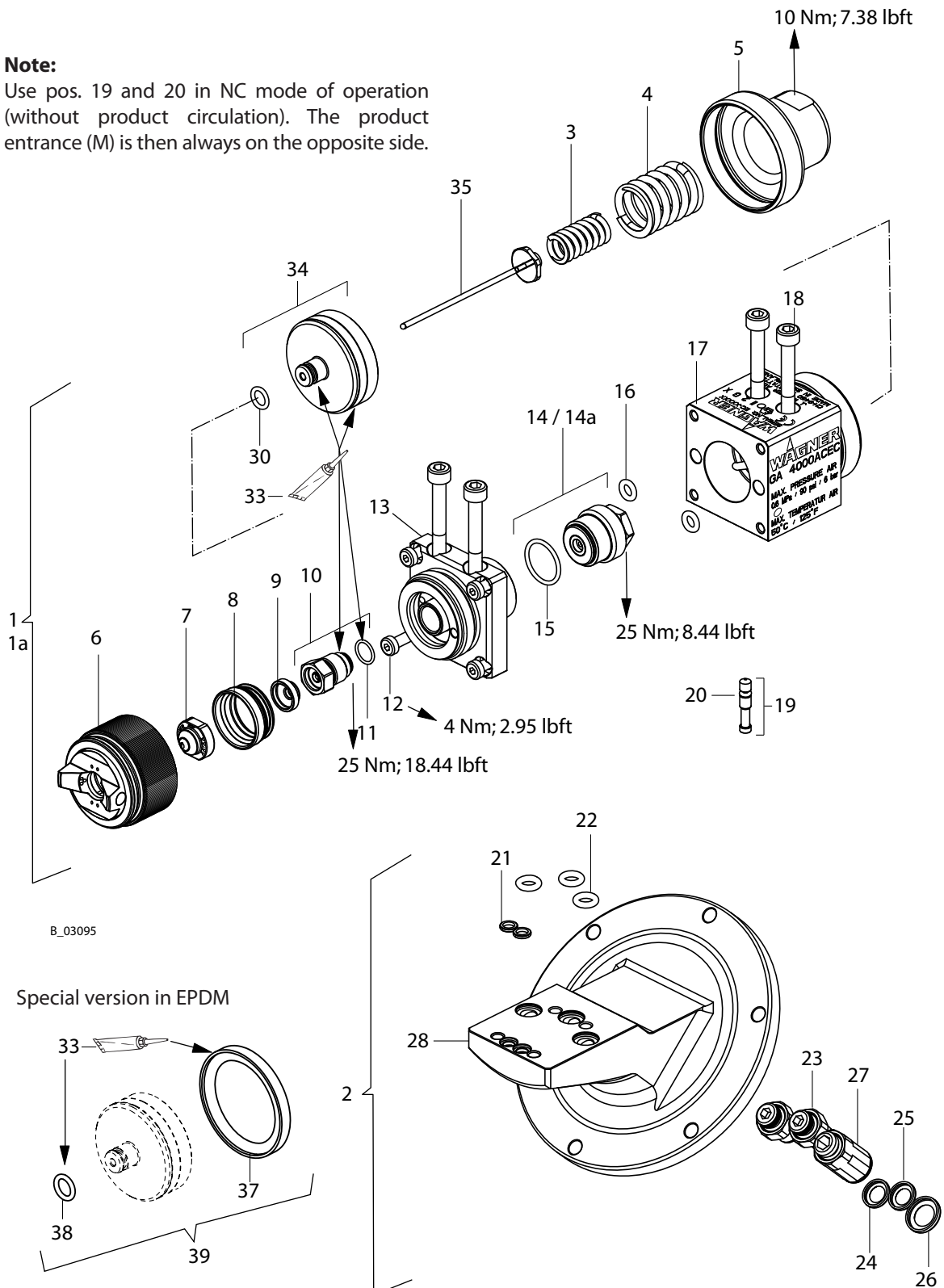
-> For service sets, see chapter 11.4.

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



**11.3 SPARE PARTS LIST FOR GA 4000ACEC ROBOT****Note:**

Use pos. 19 and 20 in NC mode of operation (without product circulation). The product entrance (M) is then always on the opposite side.



| Spare parts list |    |                                    | Robot EC C |           | Robot EC NC |           |
|------------------|----|------------------------------------|------------|-----------|-------------|-----------|
| Pos              | K  | Designation                        | Stk        | Order No. | Stk         | Order No. |
| 1                | ◆  | Gun body GA4000ACEC                | 1          | 2312145   | 1           | 2312145   |
| 1a               | ◆  | Gun body GA 4000ACEC (RP)          | 1          | 2338602   | 1           | 2338602   |
| 2                | ◆  | Base plate GA 4000ACEC-Fanuc Robot | 1          | 2313677   | 1           | 2313677   |
| 3                |    | Helical spring                     | 1          | 2309945   | 1           | 2309945   |
| 4                |    | Helical spring                     | 1          | 9998991   | 1           | 9998991   |
| 5                |    | End cap short                      | 1          | 2314274   | 1           | 2314274   |
| 6                | ●  | Air cap LV plus (red)              | 1          | 2308808   | 1           | 2308808   |
| 6                | ●  | Air cap HV plus (blue)             | 1          | 2308809   | 1           | 2308809   |
| 6                | ●  | Air cap LA plus (bronze)           | 1          | 2313493   | 1           | 2313493   |
| 6                | ●  | Air cap LV plus (blank)            | 1          | 2340299   | 1           | 2340299   |
| 7                | ●  | AC nozzle                          | 1          | 379...    | 1           | 379...    |
| 8                | ◆  | Sealing ring                       | 1          | 394339    | 1           | 394339    |
| 9                | ◆  | Sealing ring nozzle                | 1          | 364328    | 1           | 364328    |
| 10               | ◆  | Valve housing, complete            | 1          | 2314279   | 1           | 2314279   |
| 11               | ◆  | O-ring                             | 1          | 9974245   | 1           | 9974245   |
| 12               |    | Socket cap screw                   | 4          | 2307893   | 4           | 2307893   |
| 13               |    | Head piece                         | 1          | 2314278   | 1           | 2314278   |
| 14               | ◆  | Standard packing                   | 1          | 2313516   | 1           | 2313516   |
| 14a              | ◆  | Packing insert GA 4000AC (RP)      | 1          | 2338601   | 1           | 2338601   |
| 15               | ◆  | O-ring                             | 1          | 367528    | 1           | 367528    |
| 16               | ◆  | O-ring                             | 2          | 9974153   | 2           | 9974153   |
| 17               |    | Piston housing EC                  | 1          | 2314303   | 1           | 2314303   |
| 18               |    | Socket cap screw                   | 4          | 2308292   | 4           | 2308292   |
| 19               | ◆● | Complete product channel lock pin  | -          | -         | 1           | 2310534   |
| 20               | ◆  | O-ring                             | -          | -         | 1           | 2307873   |
| 21               | ◆  | Sealing product                    | 2          | 2310473   | 2           | 2310473   |
| 22               | ◆  | O-ring                             | 3          | 9974265   | 3           | 9974265   |
| 23               |    | Straight screw-in fitting          | 2          | 9998090   | 2           | 9998090   |
| 24               |    | Coding ring green                  | 1          | 9998994   | 1           | 9998994   |
| 25               |    | Coding ring red                    | 1          | 9998995   | 1           | 9998995   |
| 26               |    | Coding ring blue                   | 1          | 9998618   | 1           | 9998618   |
| 27               |    | Straight screw-in fitting          | 1          | 9998993   | 1           | 9998993   |
| 28               |    | Base plate                         | 1          |           | 1           |           |
| 30               | ◆  | O-ring                             | 1          | 248314    | 1           | 248314    |
| 33               | ●  | Vaseline white PHHV                | 1          | 9992698   |             |           |
| 34               | ◆  | Complete piston EC                 | 1          | 2314302   | 1           | 2314302   |

◆ = Wearing part

-&gt; For service sets, see chapter 11.4.

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

| Spare parts list |    |                                | Robot EC C |           | Robot EC NC |           |
|------------------|----|--------------------------------|------------|-----------|-------------|-----------|
| Pos              | K  | Designation                    | Stk        | Order No. | Stk         | Order No. |
| 35               | ◆  | Complete valve rod EC          | 1          | 2314301   | 1           | 2314301   |
| 37               | ◆● | Piston seal EPDM               | 1          | 2322531   | 1           | 2322531   |
| 38               | ◆● | O-ring                         | 1          | 9974179   | 1           | 9974179   |
| 39               | ◆● | Sealing set GA 4000ACEC (EPDM) | 1          | 2322533   | 1           | 2322533   |

◆ = Wearing part

-> For service sets, see chapter 11.4.

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

## 11.4 SERVICE SETS AND SPARE PART MODULES

| Order No. | Designation                           | Consisting of spare parts items |
|-----------|---------------------------------------|---------------------------------|
| 2314356   | Base plate service set                | 21, 22                          |
| 2314354   | Gun body GA 4000ACEC service set      | 8, 9, 11, 14, 16, 30            |
| 2338658   | Gun body GA 4000ACEC (RP) service set | 8, 9, 11, 16, 30                |
| 2322533   | Sealing set GA 4000ACEC (EPDM)        | 37, 38                          |

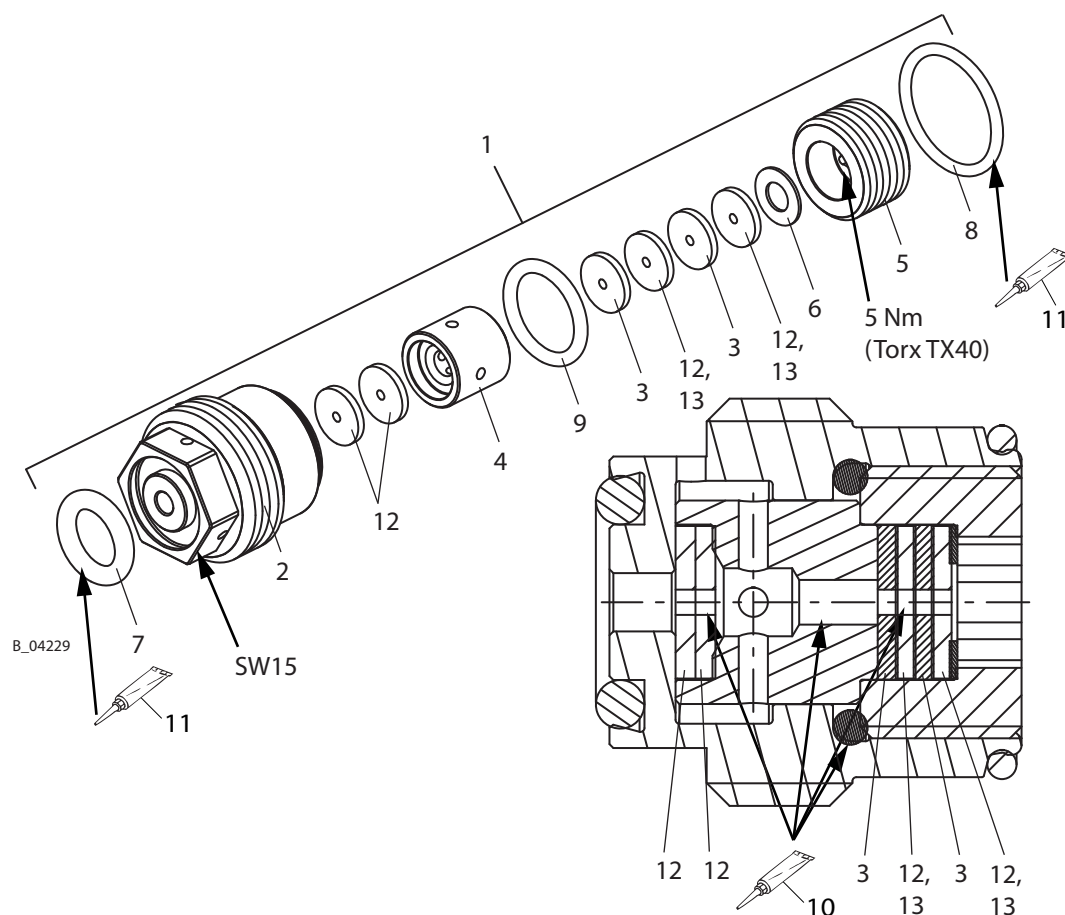
## 11.5 PACKING INSERT GA 4000AC (RP)

| Spare parts list |    |                                           |     |           | set of 12 packings |
|------------------|----|-------------------------------------------|-----|-----------|--------------------|
| Pos              | K  | Designation                               | Stk | Order No. | Order No.          |
| 1                |    | Packing insert GA 4000AC (RP)             | 1   | 2338601   | -                  |
| 2                |    | Housing                                   | 1   | -         | -                  |
| 3                | ◆  | PE sealing washer                         | 2   | -         | 2339142            |
| 4                |    | Housing insert                            | 1   | -         | -                  |
| 5                |    | Housing screw                             | 1   | -         | -                  |
| 6                | ◆  | Pressure disk                             | 1   | 2338567   | -                  |
| 7                | ◆  | O-ring                                    | 1   | 9974196   | -                  |
| 8                | ◆  | O-ring                                    | 1   | 367528    | -                  |
| 9                | ◆  | O-ring                                    | 1   | 2338570   | -                  |
| 10               |    | Mobilux EP 2 grease                       | 1   | 9998808   | -                  |
| 11               |    | Vaseline white PHHV II                    | 1   | 9992698   | -                  |
| 12               | ◆  | PTFE + GF sealing washer                  | 4   | -         | 2339141            |
| 13               | ◆● | PTFE sealing washer                       | 2   | -         | 2339143            |
| 14               |    | Assembly manual for GA4000AC packing (RP) | 1   | 2338708   | -                  |

◆ = Wearing part

-> For sealing sets, see chapter 11.6.

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

**Packing insert GA 4000AC (RP)****11.6 SEALING SET GA 4000 PACKING RP AND RP SPECIAL**

| Order No. | Designation                            | Consisting of spare parts items |
|-----------|----------------------------------------|---------------------------------|
| 2339140   | Sealing set GA 4000 packing RP         | 3, 6, 7, 8, 9, 12, 14           |
| 2339810   | Sealing set GA 4000 packing RP special | 3, 6, 7, 8, 9, 12, 13, 14       |

## **12 WARRANTY AND CONFORMITY DECLARATIONS**

---

### **12.1 IMPORTANT NOTES REGARDING PRODUCT LIABILITY**

As a result of an EC regulation effective from January 1, 1990, the manufacturer shall only be liable for his product if all parts originate from him or are approved by him, and if the devices are properly mounted, operated and maintained.

The manufacturer will not be held liable or will only be held partially liable if third-party accessories or spare parts have been used.

With genuine WAGNER accessories and spare parts, you have the guarantee that all safety regulations are complied with.

### **12.2 WARRANTY CLAIM**

Full warranty is provided for this device:

We will at our discretion repair or replace free of charge all parts which within 24 months in single-shift, 12 months in 2-shift or 6 months in 3-shift operation from date of receipt by the purchaser are found to be wholly or substantially unusable due to causes prior to the sale, in particular faulty design, defective materials or poor workmanship.

The type of warranty provided is such that the device or individual components of the device are either replaced or repaired as we see fit. The resulting costs, in particular shipping charges, road tolls, labour and product costs will be borne by us except where these costs are increased due to the subsequent shipment of the device to a location other than the address of the purchaser.

We do not provide warranty for damage that has been caused or contributed to for the following reasons:

Unsuitable or improper use, faulty assembly or commissioning by the purchaser or a third party, normal wear, negligent handling, defective maintenance, unsuitable coating products, substitute products and the influence of chemical, electrochemical or electrical agents, except when the damage is attributable to us.

Abrasive coating products such as red lead, emulsions, glazes, liquid abrasives, zinc dust paints and so forth reduce the service life of valves, packings, spray guns, nozzles, cylinders, pistons etc. Wear and tear due to such causes are not covered by this warranty.

Components that have not been manufactured by WAGNER are subject to the original warranty of the manufacturer.

Replacement of a component does not extend the period of warranty of the device.

The device should be inspected immediately upon receipt. To avoid losing the warranty, we or the supplier company are to be informed in writing about obvious faults within 14 days upon receipt of the device.

We reserve the right to have the warranty compliance met by a contracting company.

The services provided by this warranty are dependent on evidence being provided in the form of an invoice or delivery note. If the examination discovers that no warranty claim exists, the costs of repairs are charged to the purchaser.

It is clearly stipulated that this warranty claim does not represent any constraint on statutory regulations or regulations agreed to contractually in our general terms and conditions.

J. Wagner AG

### 12.3 CE DECLARATION OF CONFORMITY



Herewith we declare that the supplied version of  
AirCoat automatic gun GA 4000ACEC

complies with the following guidelines:

|            |         |
|------------|---------|
| 2006/42/EC | 94/9/EC |
|------------|---------|

Applied standards, in particular:

|                           |                          |
|---------------------------|--------------------------|
| DIN EN ISO 12100: 2011    | DIN EN 13463-1: 2009     |
| DIN EN 1127-1: 2011       | DIN EN 13463-5: 2011     |
| DIN EN 1953: 2010         | DIN EN ISO 13732-1: 2008 |
| DIN EN ISO 14462: 2010    | DIN EN 4413: 2011        |
| DIN EN ISO 80079-34: 2012 |                          |

Identification:

**CE**  II 2G X

#### EC Certificate of Conformity

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

**Order number:** 2315627

### 12.4 NATIONAL TECHNICAL SPECIFICATIONS

- a) BGR 500 Part 2, Chapter 2.36 "Working with Liquid Ejection Devices"
- b) BGR 500 Part 2, Chapter 2.29 "Working with Coating Products"
- c) TRBS 2153 Avoiding ignition risks

**Note:** All titles can be ordered from Heymanns Publishing House in Cologne, or they can be found on the Internet.

|                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| <b>Belgium</b><br>WAGNER Spraytech Benelux BV<br>Veilinglaan 58<br>B- 1861 Wolvenstem<br>Telephone: +32 (0)2 269 4675<br>Telefax: +32 (0)2 269 7845<br>E-Mail: info@wsb-wagner.be                                                           | <b>Denmark</b><br>WAGNER Industrial Solution Scandinavia<br>Viborgvej 100, Skærgær<br>DK- 8600 Silkeborg<br>Telephone: +45 70 200 245<br>Telefax: +45 86 856 027<br>E-Mail: info@wagner-industri.com                                                  |
| <b>United Kingdom</b><br>WAGNER Spraytech (UK) Ltd.<br>Haslemere Way<br>Tramway Industrial Estate<br>GB- Banbury, OXON OX16 8TY<br>Telephone: +44 (0)1295 265 353<br>Telefax: +44 (0)1295 269861<br>E-Mail: enquiries@wagnerspraytech.co.uk | <b>France</b><br>J. WAGNER France S.A.R.L.<br>Parc de Gutenberg - Bâtiment F8<br>8 Voie la Cardon<br>F- 91127 Palaiseau-Cedex<br>Telephone: +33 1 825 011 111<br>Telefax: +33 1691 946 55<br>E-Mail: division.solutionsindustrielles@wagner-france.fr |
| <b>Netherlands</b><br>WAGNER SPRAYTECH Benelux BV<br>Zonnebaan 10<br>NL- 3542 EC Utrecht<br><br>Telephone: +31 (0) 30 241 4155<br>Telefax: +31 (0) 30 241 1787<br>E-Mail: info@wsb-wagner.nl                                                | <b>Italy</b><br>WAGNER COLORA S.r.l.<br>Via Italia, 34<br>I- 20060 Gessate (MI)<br><br>Telephone: +39 02 959292 1<br>Telefax: +39 02 95780187<br>E-Mail: info@wagnercolora.com                                                                        |
| <b>Japan</b><br>WAGNER Spraytech Ltd.<br>2-35, Shinden Nishimachi<br>J- Daito Shi, Osaka, 574-0057<br><br>Telephone: +81 (0) 720 874 3561<br>Telefax: +81/ (0) 720 874 3426<br>E-Mail: marketing@wagner-japan.co.jp                         | <b>Austria</b><br>J. WAGNER GmbH<br>Otto-Lilienthal-Str. 18<br>Postfach 1120<br>D- 88677 Markdorf<br>Telephone: +49 (0) 7544 5050<br>Telefax: +49 (0) 7544 505200<br>E-Mail: service.standard@wagner-group.com                                        |
| <b>Sweden</b><br>WAGNER Industrial Solutions Scandinavia<br>Skolgatan 61<br>SE- 568 31 Skillingaryd<br>Telephone: +46 (0) 370 798 30<br>Telefax: +46 (0) 370 798 48<br>E-Mail: info@wagner-industri.com                                     | <b>Spain</b><br>WAGNER Spraytech Iberica S.A.<br>Ctra. N- 340, Km. 1245,4<br>E- 08750 Molins de Rei (Barcelona)<br>Telephone: +34 (0) 93 680 0028<br>Telefax: +34 (0) 93 668 0156<br>E-Mail: info@wagnerspains.com                                    |
| <b>Czechoslovakia</b><br>WAGNER s.r.o.<br>Nedasovská Str. 345<br>15521 Praha 5 - Zlicin<br>Telephone: +42 (0) 2 579 50 412<br>Telefax: +42 (0)2 579 51 052<br>E-Mail: info@wagner.cz                                                        | <b>USA</b><br>WAGNER Systems Inc.<br>300 Airport Road, unit 1<br>Elgin, IL 60123 USA<br>Telephone: +1 630 503 2400<br>Telefax: +1 630 503 2377<br>E-Mail: info@wagnersystemsinc.com                                                                   |



# WAGNER



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