

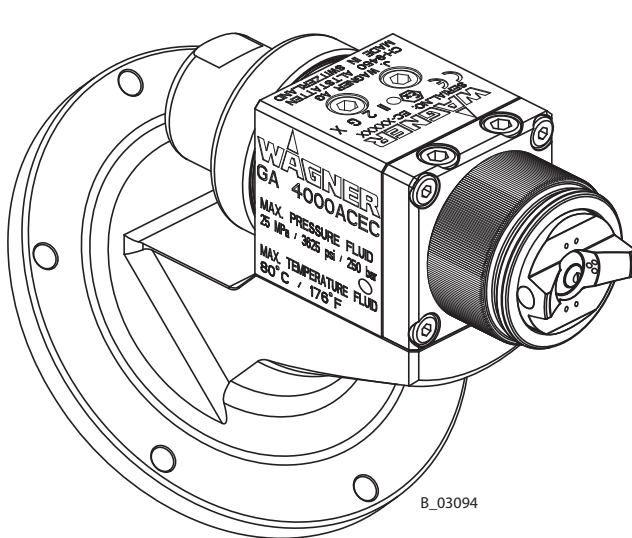


Translation of the original  
Operating manual

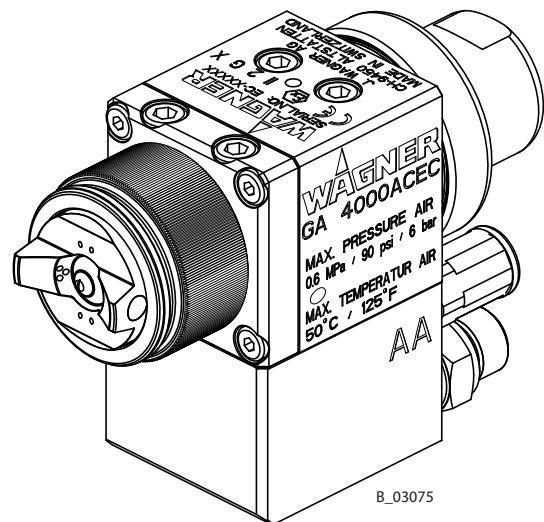
GA 4000ACEC

Edition 08 / 2010

**AirCoat**  
**Automatic spray gun**



B\_03094



B\_03075



II 2GX (Atex 95)



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## 1 ABOUT THESE INSTRUCTIONS

This operating manual contains information on the operation, repair and maintenance of the unit.

→ Always observe these instructions when operating the unit.

This equipment can be dangerous if it is not operated in accordance with this manual.

Compliance with these instructions constitutes an integral component of the warranty agreement.

### 1.1 LANGUAGES

This operating manual is available in the following languages:



Language:	Part No.	Language:	Part No.
German	2311056	English	2311057
French	2311058	Dutch	---
Italian	2311059	Spanish	2311060

### 1.2 WARNINGS, NOTES AND SYMBOLS IN THESE INSTRUCTIONS



Warning instructions in this manual point out particular dangers to users and equipment and state measures for avoiding the hazard.

These warning instructions fall into the following categories:



**Danger** - imminent danger. Non-observance will result in death, serious injury and serious material damage.

 SIHI_0100_GB	 <b>DANGER</b>
	<p><b>This line warns of the hazard!</b> Possible consequences of failing to observe the warning instructions. The signal word points out the hazard level.</p> <p>→ The measures for preventing the hazard and its consequences.</p>

**Warning** - possible danger. Non-observance can result in death, serious injury and serious material damage.

 SIHI_0103_GB	 <b>WARNING</b>
	<p><b>This line warns of the hazard!</b> Possible consequences of failing to observe the warning instructions. The signal word points out the hazard level.</p> <p>→ The measures for preventing the hazard and its consequences.</p>

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

 SIHI_0101_GB	 <b>CAUTION</b>
	<p><b>This line warns of the hazard!</b> Possible consequences of failing to observe the warning instructions. The signal word points out the hazard level.</p> <p>→ The measures for preventing the hazard and its consequences.</p>

**Caution** - a possibly hazardous situation. Non-observance can cause material damage.

SIHI_0102_GB	<b>CAUTION</b>
<p><b>This line warns of the hazard!</b> Possible consequences of failing to observe the warning instructions. The signal word points out the hazard level.</p> <p>→ The measures for preventing the hazard and its consequences.</p>	

**Note** - provide information on particular characteristics and how to proceed.

## 2 GENERAL SAFETY INSTRUCTIONS

### 2.1 SAFETY INSTRUCTIONS FOR THE OPERATOR

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



#### 2.1.1 ELECTRICAL EQUIPMENT

Electrical plant and unit

- 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 put out of operation 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.



#### 2.1.2 PERSONNEL QUALIFICATIONS

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

#### 2.1.3 A SAFE WORK ENVIRONMENT

- Ensure that the floor of the working area is anti-static in accordance with EN 50053 Part 1, §7-2, measurement in accordance with DIN 51953.
- Ensure that all persons within the working area wear anti-static shoes, e.g. shoes with leather soles.
- Ensure that during spraying, persons wear anti-static gloves so that they are earthed via the handle of the spray gun.
- Customer to provide paint mist extraction systems conforming to local regulations.
- Ensure that the following components of a safe working environment are available:
  - Material/air hoses adapted to the working pressure
  - Personal safety equipment (breathing and skin protection)
- Ensure that there are no ignition sources such as naked flame, glowing wires or hot surfaces in the vicinity. Do not smoke.



### 2.2 SAFETY INSTRUCTIONS FOR STAFF

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



**2.2.1 SAFE HANDLING OF WAGNER SPRAY UNITS**

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 unit, 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 unit.
  - By functional faults: Identify and correct the problem, proceed as described in chapter „Trouble shooting“.

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 a firm footing when operating the spray gun.
- Only hold the spray gun briefly in any one position.

**2.2.2 EARTH THE UNIT**

Electrostatic charges can occur on the unit due to the electrostatic charge and the flow speed involved in spraying. These can cause sparks and flames upon discharge.

- Ensure that the unit is always earthed.
- Earth the work pieces to be coated.
- Ensure that all persons inside the working area are earthed, e.g. that they are wearing antistatic shoes.
- When spraying, wear antistatic gloves to earth yourself via the spray gun handle.

**2.2.3 MATERIAL HOSES**

- Ensure that the hose material is chemically resistant to the sprayed materials.
- Ensure that the material hose is suitable for the pressure generated in the unit.
- Ensure that the following information is visible on the high pressure hose:
  - Manufacturer
  - Permissible operating overpressure
  - Date of manufacture.
- The electrical resistance of the complete high pressure hose must be less than 1 MOhm.



## 2.2.4 CLEANING

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

An explosive gas/air mixture forms in closed containers.

- When cleaning units with solvents, never spray into a closed container.
- Earth the container.



## 2.2.5 HANDLING HAZARDOUS LIQUIDS, VARNISHES AND PAINTS

- When preparing or working with paint and when cleaning the unit, follow the working instructions of the manufacturer of the paints, 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 breathing apparatus if necessary.
- For sufficient health and environmental safety: Operate the unit in a spray booth or on a spraying wall with the ventilation (extraction) switched on.
- Wear suitable protective clothing when working with hot materials.



## 2.2.6 TOUCHING HOT SURFACES

- Touch hot surfaces only if you are wearing protective gloves.
- When operating the unit with a coating material with a temperature of > 43 °C; 109.4 °F:
  - Identify the unit with a warning label that says „Warning - hot surface“.



### Order No.

9998910 Information label

9998911 Safety label

## 2.3 CORRECT USE

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

- Use the unit only to work with the materials recommended by WAGNER.
- Operate the unit only as an entire unit.
- Do not deactivate safety equipment.
- Use only WAGNER original spare parts and accessories.





## 2.4 USE IN AN EXPLOSION HAZARD AREA

### 2.4.1 CORRECT USE

The unit is suitable for working liquid materials in accordance with the classification into explosion classes.

### 2.4.2 EXPLOSION PROTECTION IDENTIFICATION

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

CE  II 2G X



- CE: Communautés Européennes  
Ex: Symbol for explosion protection  
II: Unit class II  
2: Category 2 (Zone 1)  
G: Ex-atmosphere gas  
X: See: "Special Notes" in the operating manual

### 2.4.3 "X" SPECIAL NOTES

- X: The maximum surface temperature corresponds to the permissible material temperature.  
This and the permissible ambient temperature can be found in the Technical Data.

### 2.4.4 SAFETY INSTRUCTIONS

#### Safe handling of WAGNER spray units

Mechanical sparks can form if the unit 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 spray gun.
- Use only tools that are made of a permitted material.

#### Ignition temperature of the coating material

- Ensure that the ignition temperature of the coating material is above the maximum surface temperature.

#### Medium supporting atomizing

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

#### Cleaning

If there are deposits on the surfaces, the unit may form electrostatic charges. Flames or sparks can form if there is a discharge.

- Remove deposits from the surfaces to maintain conductivity.

## **3 GUARANTEE AND CONFORMITY DECLARATIONS**

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### **3.1 IMPORTANT NOTES ON PRODUCT LIABILITY**

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

If other makes of accessory and spare parts are used, the manufacturer's liability could be fully or partially null and void.

The usage of original WAGNER accessories and spare parts guarantees that all safety regulations are observed.

### **3.2 GUARANTEE CLAIM**

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

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

Unsuitable or improper use, faulty installation or commissioning by the purchaser or a third party, normal wear, negligent handling, defective maintenance, unsuitable coating products, substitute materials and the action of chemical, electro chemical 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 similar reduce the service life of valves, packings, spray guns, tips, cylinders, pistons etc. Signs of wear and tear due to such causes are not covered by this guarantee.

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

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

The unit should be inspected immediately upon receipt. To avoid losing the guarantee, 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 guarantee compliance met by a contracting company.

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

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

J. Wagner AG

### 3.3 CE-CONFORMITY



Herewith we declare that the supplied version of

2312145	AirCoat automatic spray gun GA 4000ACEC
2308812	Base plate
2312146	Base plate
2313677	Base plate Robot

Complies with the following guidelines:

2006/42/EG  
94/9/EG

Applied standards, in particular:

DIN EN ISO 12100-1: 2004-04  
DIN EN ISO 12100-2: 2004-04  
DIN EN ISO 14121: 2007-12  
DIN EN 1127-1: 2008-02  
DIN EN 1953: 1998-12  
DIN EN ISO 3746: 1995-12  
DIN EN 13463-1: 2002-04  
DIN EN ISO 13732-1: 2006-12

Identification:

CE  II 2G X

#### CE Certificate of Conformity

The certificate is enclosed with this product. The certificate of conformity can be reordered from your WAGNER representative, quoting the product and serial number.

#### Part number:

GA 4000AC      2315627

### 3.4 NATIONAL TECHNICAL SPECIFICATIONS

- a) BGR500      Part 2, chap. 2.36 „Working with liquid ejection devices“
- b) BGR 500      Part 2, chap. 2.29 „Processing with coating materials“
- c) BGR 104      Explosion protection rules
- d) TRBS 2153    Avoiding ignition risks
- e) BGI 740      Painting rooms and equipment
- f) ZH 1/406      Guidelines for liquid ejection devices

**Note:** All titles can be ordered from Heymanns Publishing House in Cologne or of the Internet download.

## 4 DESCRIPTION

### 4.1 FIELD OF APPLICATION, USING IN ACCORDANCE WITH THE INSTRUCTIONS

The gun is suitable for atomizing liquid materials, particularly coating materials, using the AirCoat process.

#### 4.1.1 PROCESSABLE MATERIALS

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

#### Note

In the case of application problems contact the WAGNER technical adviser and the paint producer.

### 4.2 SCOPE OF DELIVERY

#### 4.2.1 TYPE DESCRIPTION

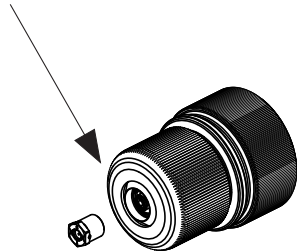
<u>GA</u>	<u>4000</u>	<u>AC</u>	<u>XX</u>	<u>XX</u>
①	②	③	④	⑤

- ① GA = Automatic gun
- ② 4000 = Type of gun
- 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 operation  
NC = No circulation operation

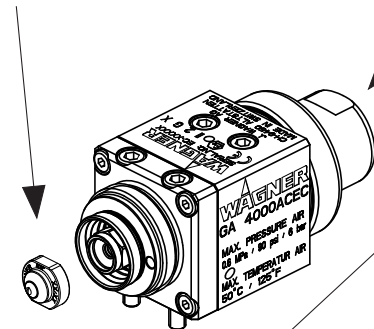
**4.2.2 OVERVIEW**

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

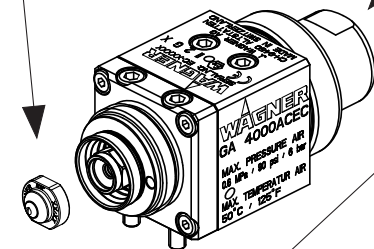
4.2.4.3 Supplementary components  
Nozzles round



4.2.4.2 Supplementary components  
Nozzles flat



4.2.3 standard equipment  
Automatic gun  
GA 4000ACEC

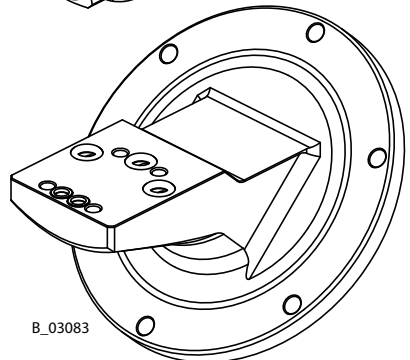
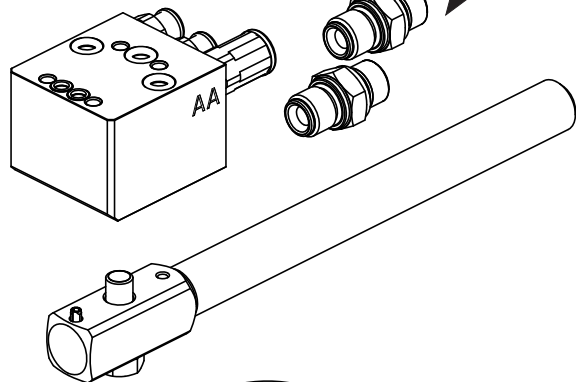
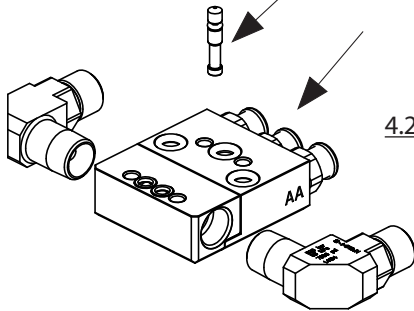
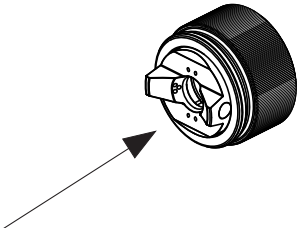


4.2.4.6 Supplementary components  
Lock pin

4.2.4.5 Supplementary components  
Air connections

4.2.4.4 Supplementary components  
Material connections

4.2.4.1 Supplementary components  
Air caps



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**4.2.3 STANDARD EQUIPMENT**

<b>Part No.</b>	<b>Description</b>
2312145	AirCoat Automatic gun GA 4000ACEC
2308812	Base plate
2312146	Base plate
2313677	Base plate Robot

The standard equipment includes:

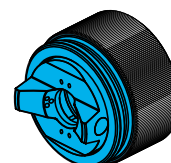
<b>Part No.</b>	<b>Description</b>
2312145	AirCoat Automatic gun GA 4000ACEC
2315627	CE-Conformity
2311056	Operating manual German
2311057	Operating manual English
See chapter 1	Operating manual in the local language

For special versions the delivery note applies.

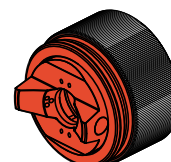
**4.2.4 SUPPLEMENTARY COMPONENTS**

**4.2.4.1 AIR CAPS**

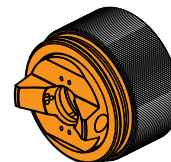
Part No.	Description
2308809	Air cap HV plus (blue) for high viscosity materials
2308808	Air cap LV plus (red) for low viscosity paints
2313493	Air cap LA plus (bronze)



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B\_03049



B\_03098

**4.2.4.2 AIRCOAT FLAT JET NOZZLES ACF3000**

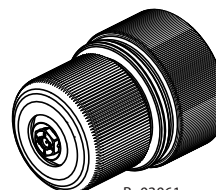
Part No.	Description
379XXX	For a nozzle list look in chapter 8



B\_00021

**4.2.4.3 AIRCOAT ROUND JET NOZZLES ACR3000**

Part No.	Description
	For a nozzle list look in chapter 8



B\_03061

**4.2.4.4 MATERIAL CONNECTIONS**

Part No.	Description
350550	Connection nipple straight
2314065	Connection nipple 90°



B\_03074



B\_03097

**4.2.4.5 AIR CONNECTIONS**

Part No.	Description
9998090	Screw-in screw connection, straight Ø 6 mm - 1/8"; Ø 0.24 inch - 1/8" * Standard
9998993	Screw-in screw connection, straight Ø 8 mm - 1/8"; Ø 5/16" - 1/8"



B\_00507



B\_00508

**4.2.4.6 LOCK PIN**

Part No.	Description
2310534	Lock pin assy.



B\_03050



## 4.3 DATA

### 4.3.1 TECHNICAL DATA

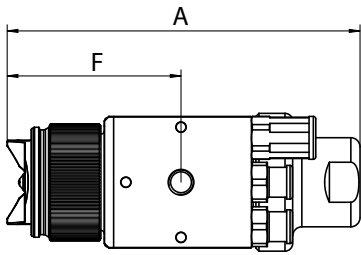
Description	Units	GA 4000AC EC	GA 4000AC EC Robot FANUC
Maxi. air inlet pressure	bar; psi	6; 87	6; 87
Maxi. material pressure	bar; psi	160; 2320	160; 2320
Material volume	l/min; cc/min.	*	*
Material connection (internal thread)	Inch	G1/4"	G1/4"
Air connection (internal thread)	Inch	G1/8"	G1/8"
Weight (standard equipment)	g; oz	760; 26.8	1130; 39.9
Maxi. temperature material	°C; °F	80; 176	80; 176
Maxi. temperature air	°C; °F	50; 122	50; 122
Maxi. ambient temperature	°C; °F	+5 - +40; +41 - +104	+5 - +40; +41 - +104
Sound level at 0.3 MPa; 3 bar; 43.5 psi air pressure and 11 MPa; 110 bar; 1549 psi material pressure **-	dB(A)	82.0	82.0
Measurement length (A)	mm; inch	115; 4.53	148; 5.83
Measurement width (B)	mm; inch	45; 1.77	43; 1.77
Measurement width (C)	mm; inch	43; 1.69	
Measurement height (D)	mm; inch	77; 3.03	109; 4.29
Measurement (E)	mm; inch	56; 2.20	48; 1.89
Measurement (F)	mm; inch	18 ±0.1; 0.71 ±0.004	110; 4.33
Measurement (G)	mm; inch	18 ±0.1; 0.71 ±0.004	100; 3.94
Measurement H	mm; inch		59.8; 2.35
Measurement I	mm; inch		38; 1.50
Measurement J	mm; inch		10; 0.39
Measurement K	mm; inch		8; 0.31

\* According to nozzle, see chapter 8.1

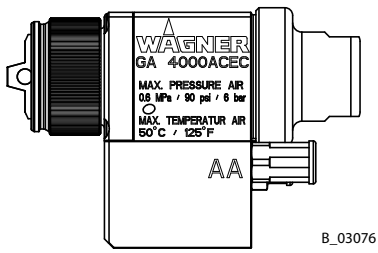
\*\* A rated sound pressure level measured at 0.5 m distance according to  
DIN EN ISO 3746 -1995.



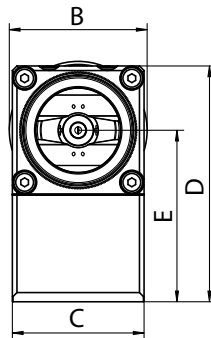
**4.3.2 MEASUREMENTS AND CONNECTIONS**



Dimension	mm; inch
Length A	115; 4.53
Width B	45; 1.77
Width C	43; 1.69
Height D	77; 3.03
E	56; 2.20
F	57; 2.24



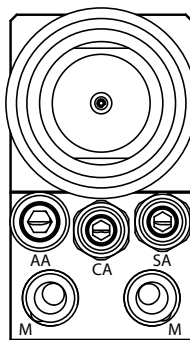
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**Connection data:**

Base plate for GA 4000ACEC

- CA = 6 mm; 0.24 inch (control air)
- C = G1/4" (paint circulation)
- AA = 8 mm; 0.31 inch (atomizing air)
- SA = 6 mm; 0.24 inch (Shaping air)
- M = G1/4" (material)

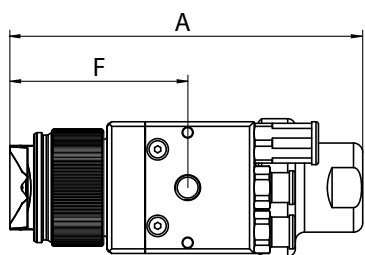


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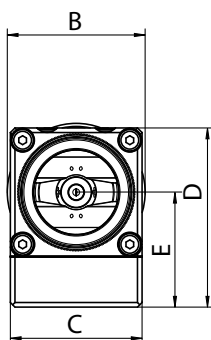
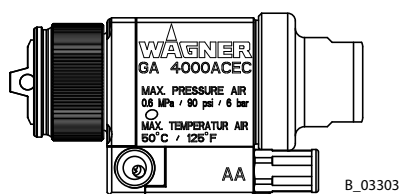
GA 4000ACEC

# GA 4000ACEC

## OPERATING MANUAL



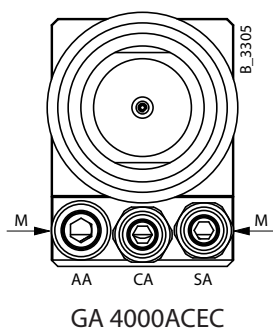
Dimension	mm; inch
Length A	115; 4.53
Width B	45; 1.77
Width C	43; 1.69
Height D	58.5; 2.30
E	37.5; 1.48
F	58; 2.28

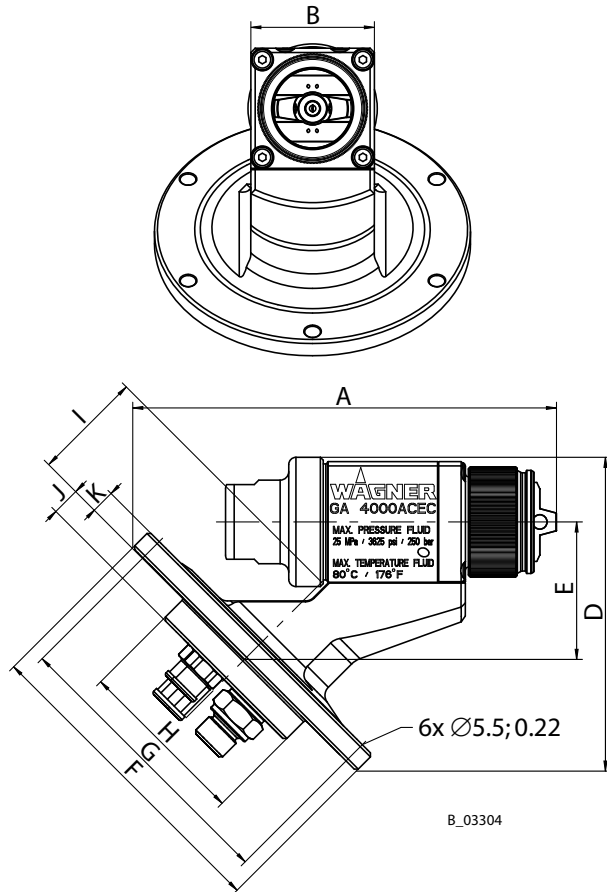


### Connection data:

Base plate for GA 4000ACEC

- CA = 6 mm; 0.24 inch (control air)
- C = G1/4" (paint circulation)
- AA = 8 mm; 0.31 inch (atomizing air)
- SA = 6 mm; 0.24 inch (Shaping air)
- M = G1/4" (material)



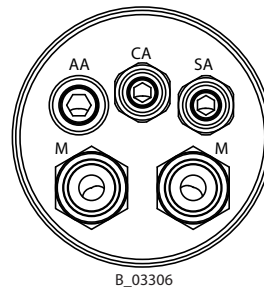


Dimension	mm; inch
Length A	148; 5.83
Width B	43; 1.69
Height D	109; 4.29
E	48; 1.89
F	110; 4.33
G	100; 3.94
H	59.8; 2.35
I	38; 1.50
J	10; 0.39
K	8; 0.31

**Connection data:**

Base plate for GA 4000ACEC Robot

- CA = 6 mm; 0.24 inch (control air)
- C = G1/4" (paint circulation)
- AA = 8 mm; 0.31 inch (atomizing air)
- SA = 6 mm; 0.24 inch (Shaping air)
- M = G1/4" (material)



GA 4000ACEC Robot

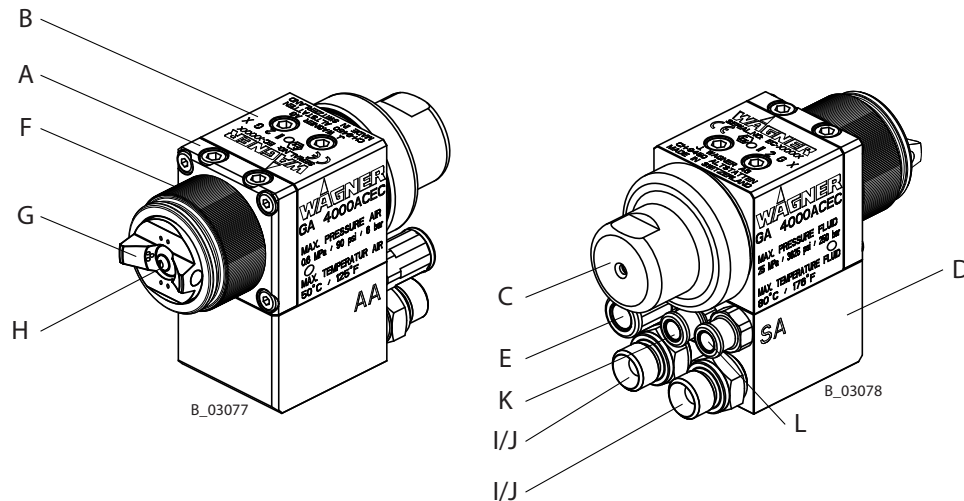
**4.3.3 MATERIALS OF PAINT WETTED PARTS**

**Metals**

- Hard metal
- Stainless steel 1.4310
- Stainless steel 1.4305
- Stainless steel 1.4104
- Aluminium nickel plated

**Plastics**

- UHMW-PE
- PTFE
- FPM
- POM
- PA 6.6

**4.4 FUNCTIONAL DESCRIPTION****4.4.1 DESIGN OF SPRAY GUN**

Description	
Gun head	A
Gun body	B
Drive Clamping sleeve	C
Base plate	D
Connection atomizing air (blue)	E
Union nut	F
Air cap (blue, red or bronze)	G
Nozzle	H
Connection nipple (material)	I/J
Connection nipple (material circulation)	I/J
Connection for control air (red)	K
Connection for shaping air (green)	L

The device consists of a gun head (A), gun body (B), the drive (C) and a base plate (D). The device consists of a gun head (A), gun body (B), the drive (C) and a base plate (D). In the gun head (A) the material valve and the packing are accommodated. In the gun body (B) the clamping mechanism for the packing is inserted. The gun body serves besides as connecting piece between the drive (C) and the gun head (A). The drive (C) consists a diaphragm and a pressure spring for the material valve. The base plate (C) contains all links (I, J, K, L). It can be used to mount the gun at a movement device system or at the standard gun holder.

**4.4.2 CIRCULATION OPERATION**

**Retrofitting to circulation operation:**

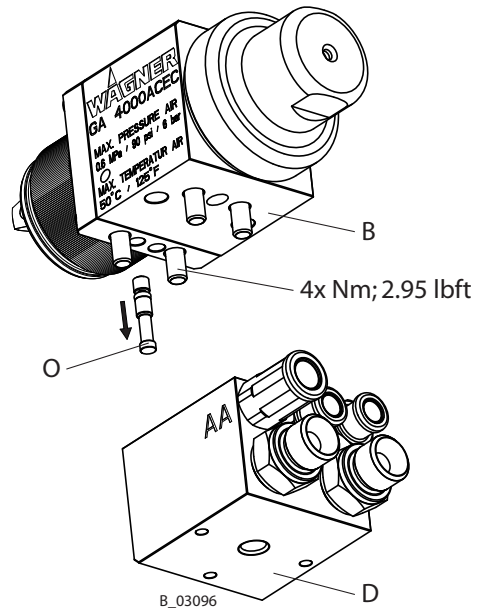
	<b>WARNING</b>
	<p><b>The plug (P) is under high pressure!</b> The plug can fly off like a projectile</p> <p>→ In NC mode (without material circulation), connect the gun only with the closing pin (O) fitted.</p>

SIHI\_0007\_GB

1. Replace plug (P) with connection nipple (L) and seal (Q).
2. Remove lock pin (O) from gun body.
3. Screw gun body (B) and base plate (D) together.  
Ensure correct position of seals when doing so.
4. Tighten four screws to 4 Nm; 2.95 lbft.

**Note**

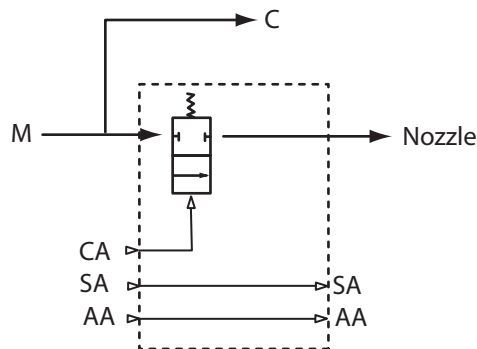
In the C (circulation) operating mode, flow may only occur in the gun from „M“ to „C“.



**4.4.3 FUNCTIONS OF THE SPRAY GUN**

**Schema GA 4000ACEC and Robot**

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



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**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 material valve. In this position, the coating material which is under pressure is applied to the workpiece.

**Close:**

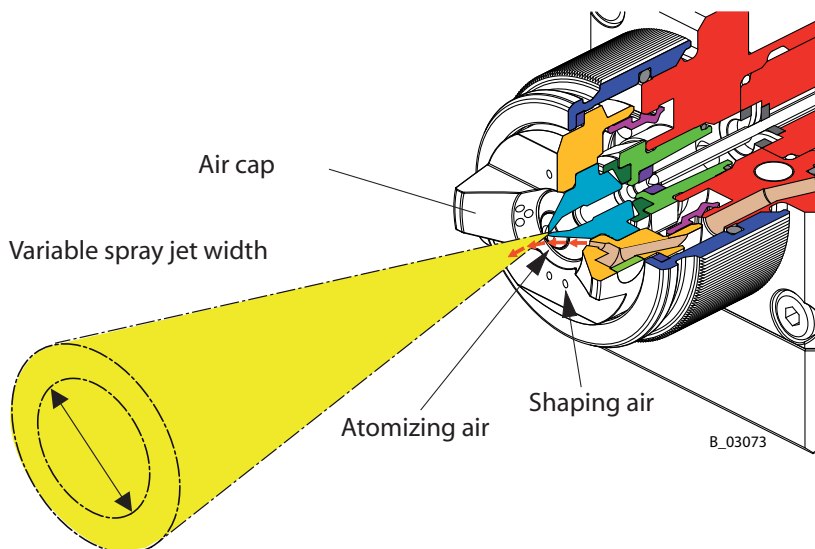
The diaphragm is relieved, and the material valve closes due to the pressure spring which presses against the material valve tappet.  
The air valve is then closed externally.

**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 material connections and the colour channels in the base plate are arranged so that several guns can be used in circulation operation.

**4.5 SPRAYING PROCESS****4.5.1 SPRAYING PROCESS AIRCOAT FLAT JET**

With the AirCoat flat jet process the spray material is atomized at a pressure of 3-12 MPa; 30-120 bar; 435-1740 psi. A soft, 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. The shaping air (C) provides the potential to make the width of the spray jet larger and smaller.

**Advantages**

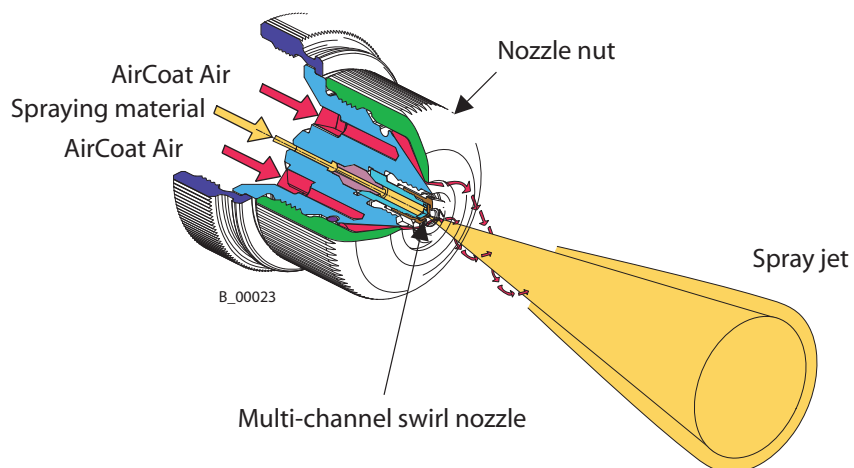
- High painting capacity
- Low fogging tendency
- Good finish
- High viscosity paints can easily be applied
- Change in width the jet

#### 4.5.2 SPRAYING PROCESS AIRCOAT ROUND JET

With the AirCoat round jet process the spray material is 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 produces a soft jet (used standard). 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

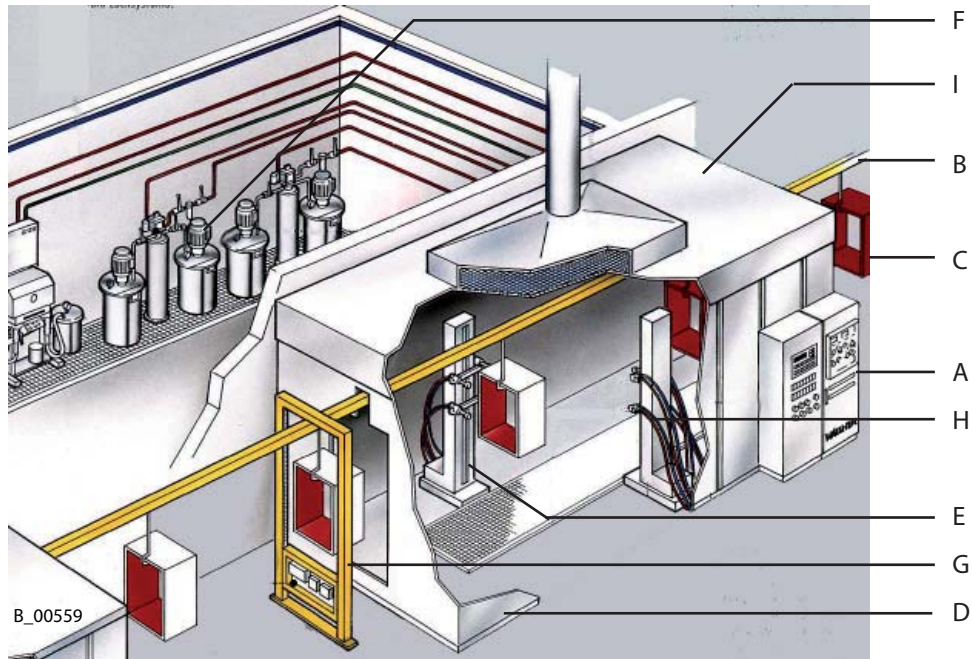
- High painting capacity
- Low fogging tendency
- Good finish
- High viscosity paints can easily be applied



## 5 START-UP AND OPERATION

### 5.1 INSTALLATION AND CONNECTION

#### 5.1.1 TYPICAL AUTOMATIC SPRAYING SYSTEM





	Description
A	Control cabinet
B	Conveyor
C	Workpiece
D	Spray booth
E	Automatic movement system
F	Paint supply
G	Detection of part
H	Spray guns
I	Supply air system and exhaust air system

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

The operating instructions and the safety regulations for the additional system components used must be read before starting-up.

**5.1.2 VENTILATION OF THE SPRAY BOOTH**

	 <b>WARNING</b>
	<p><b>Toxic and/or flammable vapor mixtures!</b> Risk of poisoning and burns</p> <p>→ Operate the unit in a spraying booth approved for the working materials. -or- → Operate the unit on an appropriate spraying wall with the ventilation (extraction) switched on. → Observe national and local regulations for the outgoing air speed.</p>

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**5.1.3 AIR SUPPLIES**

The use of an air filter with the air regulator ensures that only dry, clean atomizing air gets into the spray gun. Dirt and moisture in the atomizing air reduce the spraying quality and the appearance of the finished piece.

**5.1.4 PAINT SUPPLIES**



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

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	 <b>DANGER</b>
	<p><b>Bursting hose, bursting threaded joints!</b> Danger to life from injection of material</p> <p>→ Ensure that the hose material is chemically resistant. → Ensure that the spray gun, threaded joints and material hose between the unit and the spray gun is suitable for the pressure generated in the unit. → Ensure that the following information can be seen on the high pressure hose: - Manufacturer - Permissible operating pressure - Date of manufacture.</p>

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**5.1.5 EARTHING THE SYSTEM**

	 <b>WARNING</b>
	<p><b>Discharge of electrostatically charged components in atmospheres containing solvents!</b> Explosion hazard from electrostatic sparks or flames</p> <p>→ Earth all unit components. → Earth the workpieces being painted.</p>

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	 <b>WARNING</b>
	<p><b>Heavy paint mist if earthing is insufficient!</b> Risk of poisoning Insufficient paint application quality</p> <p>→ Earth all unit components. → Earth the workpieces being painted.</p>

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

## 5.2 PREPARATION OF PAINTS

The viscosity of the paints is of great importance. The best results are obtained for paints of 80 and 150 mPas.

Processing of up to 260 mPas is generally possible without problem, if high coating thicknesses are required. It is important for the optimal coating quality that the lacquer temperature is kept constant during the coating.

In the case of application problems contact the WAGNER technical adviser and the paint producer.

### 5.2.1 VISCOSITY CONVERSION TABLE



milli Pascal x Sec mPas	Centipoise	Poise	DIN Cup 4 mm ; 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		

## 5.3 STARTING OPERATION

### 5.3.1 GENERAL RULES FOR HANDLING THE SPRAY GUN

→ Observe **safety instructions** in chapter 2.

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



	 <b>WARNING</b>
	<p><b>Unintentional putting into operation!</b> Risk of injury</p> <p>Before all work on the unit, in the event of work interruptions and functional faults:</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 unit.</li> <li>→ Secure the spray gun against actuation.</li> <li>→ By functional faults: Identify and correct the problem, proceed as described in chap „Trouble shooting“.</li> </ul>

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<h2>CAUTION</h2>
<p><b>Solvent in air conduit!</b> Problems</p> <p>→ By cleaning the spraygun use with min. 0.05 MPa; 0.5 bar; 7.25 psi shaping air. Cleaning solvent must not get into the air ducts.</p>

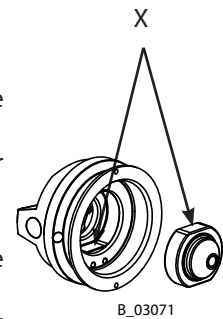
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**5.3.2 PREPARATION FOR STARTING UP**

	 <b>WARNING</b>
	<p><b>The plug (P) is under high pressure!</b> The plug can fly off like a projectile</p> <p>→ In NC mode (without material circulation), connect the gun only with the closing pin (O) fitted.</p>

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1. Mount the spray gun on the automatic movement system.
2. Connect material hoses to spray gun and to material supply system.
3. Place the nozzle into the nozzle seal. Fit the air cap over the nozzle. Take care that the nozzle fitted is correctly (see flat side X). Fit the air cap nut and tighten by hand.
4. Connect control air hose and atomizing air hose to spray gun and to oil-free, dry air supply with regulator.
5. Visually check the permissible pressures for all the equipment components.
6. Make sure that the unit and all other conductive parts within the work area are earthed.
7. Set material pressure 10 MPa; 100 bar; 1450 psi and use a suitable medium to check that connections do not leak.
8. Relieve spray gun and unit pressure.



## 5.4 OPERATION

### 5.4.1 START-UP FOR SPRAYING AIRCOAT

1. Set material pressure approx. 8 MPa; 80 bar; 1160 psi at material pump.
2. Spray (release trigger safety catch and pull trigger) and check the atomisation.
3. Set the fluid pressure to the point where a further increase in fluid pressure would significantly improve fluid atomization.
4. Now open air on the atomizing air regulator and set.
5. Adjust the amount of air at the compressed air regulator for shaping air, until the optimal spraying picture is reached. Relation between spray pattern shaping air / atomizing air see illustration.

**Note:**

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

**Spray pattern**

No shaping air/ atomizing air



Too little shaping air/ atomizing air



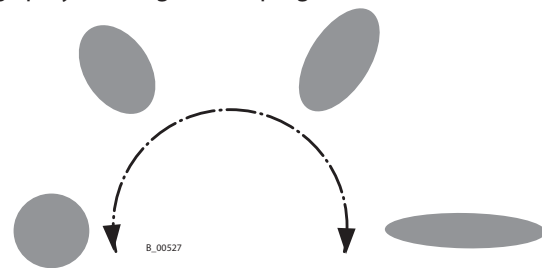
B\_00071

Correct amount of shaping air/  
of atomizing air

### 5.4.2 ADJUSTING THE 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.



Shaping air open

Shaping air closed

**Note**

The paint output volume can be changed by:

- Changing the material pressure -or-
- Using a different flat jet nozzle (see accessories).

**5.4.3 CHANGING AIRCOAT NOZZLE****CAUTION****Defective AirCoat nozzle!**

Insufficient paint application quality

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

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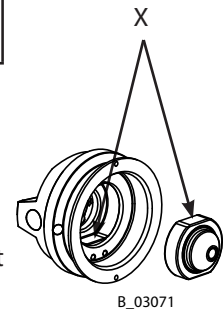
**CAUTION****Defective nozzle seal!**

Material sprays into the air cap next to the nozzle  
Risk of contamination

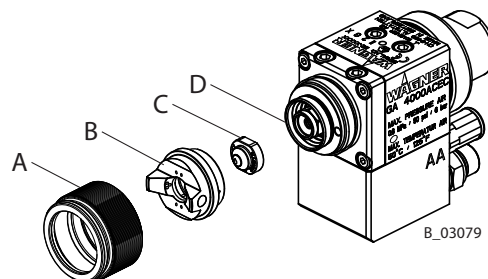
→ Do not clean the nozzle seal with sharp-edged objects.  
→ Replace the nozzle seal if the sealing surface is damaged.

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1. Relieve the pressure of gun and unit.
2. Secure gun (remove the control air hose).
3. Screw off the union nut (A).
4. Remove air cap (B).
5. Press AirCoat nozzle (C) out of the air cap (B) by hand and brush with cleaning solvent until all remaining paint has been dissolved.
6. **Assembly:**  
Place AirCoat nozzle (C) in nozzle seal (D).
7. Fit the air cap (B) over the nozzle (C). Take care that the nozzle fitted is correctly (see flat side X).
8. Fit the union nut (A) and tighten by hand.



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**5.4.4 CLEANING AIRCOAT NOZZLE**

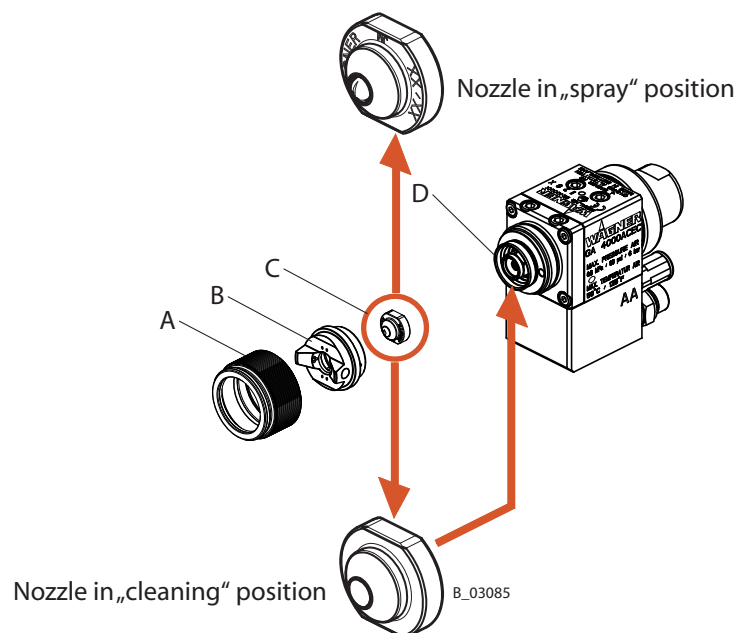
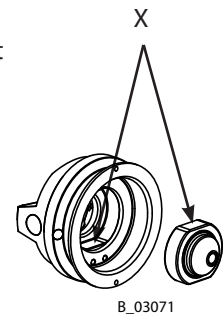
For disassembly and assembly see AirCoat nozzles section 5.4.3.

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



**5.4.5 ELIMINATE NOZZLE CLOGGING**

1. Relieve the pressure of gun and unit.
2. Secure gun (remove the control air hose).
3. Screw off the union nut (A).
4. Remove air cap (B).
5. Pull out the clogged nozzle (C) from the air cap (B), reverse it and replace it into nozzle seal (D).
6. Refit air cap (B) on the nozzle (C). Take care that the nozzle fitted is correctly (see flat side X).
7. Fit the union nut (A) over the air cap (B) onto the spray gun and tighten by hand.
8. Switch the material pressure back on.
9. Spraying (connect control air hose).
10. When the blockage has been flushed out secure the spray gun.
11. Relieve the pressure of gun and unit.
12. Secure gun (remove the control air hose).
13. Screw off the union nut (A).
14. Remove air cap (B) and reverse AirCoat nozzle (C) by hand again. Nozzle and nozzle seal clean and to nozzle in spraying position the nozzle seal (D) put on.
15. Refit air cap (B) on the nozzle (C).  
Take care that the nozzle fitted is correctly (see flat side X).
16. Fit the union nut (A) over the air cap (B) onto the spray gun and tighten by hand.
17. Connect control air. Switch the material pressure and the air pressure back on.



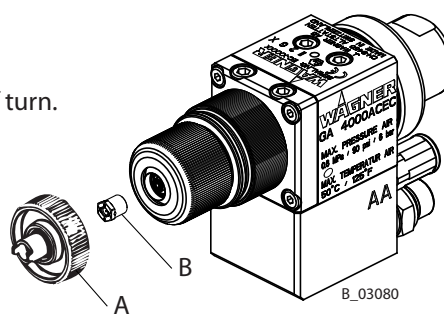
### 5.4.6 EXCHANGE OF ROUND JET NOZZLE INSERT

1. Relieve the pressure of gun and unit.
2. Secure gun (remove the control air hose).
3. Remove nozzle insert (B) with nozzle spanner (A).
4. Fit the new nozzle insert in reverse order (see chapter 8.3).

**Note:**

Cleaning of clogged round jet nozzles

1. By means of nozzle spanner (A), loosen nozzle insert (B) by a half turn.
2. Remove the nozzle spanner and press the gun briefly.
3. After cleaning the nozzle, re-tighten the nozzle insert.



## 6 MAINTENANCE

→ Observe **safety instructions** in chapter 2.

The spray gun and the unit must be cleaned every day. The cleaning agent used for cleaning must be suitable for the coating material.

### CAUTION

**Impurities in the spraying system!**

Spray gun blockage, materials harden in the spraying system

→ Flush the spray gun and paint supply with a suitable cleaning agent.

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### CAUTION

**Cleaning agent in the air duct!**

Functional faults caused by swollen seals

→ Never immerse the spray gun in cleaning agent.

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### **WARNING**

**Incorrect maintenance/repair!**

Risk of injury and damage to the equipment


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

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**6.1 SHUTTING DOWN AND CLEANING**

<b>CAUTION</b>
<p><b>Solvent in air conduit!</b> Problems</p> <p>→ By cleaning the spraygun use with min. 0.05 MPa; 0.5 bar; 7.25 psi shaping air. Cleaning solvent must not get into the air ducts.</p>

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	<b>! DANGER</b>
	<p><b>Exploding gas/ air mixture!</b> Danger to life from flying parts and burns</p> <p>→ Never spray into a closed container. → Earth the container.</p>

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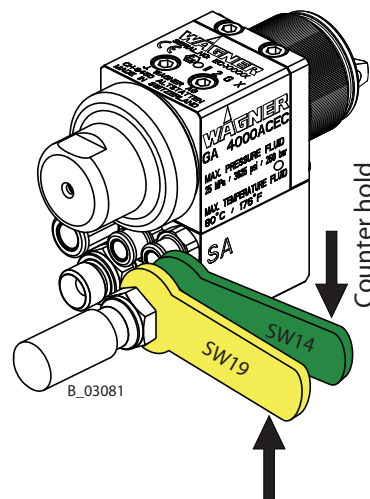
	<b>! WARNING</b>
	<p><b>Explosive atmosphere!</b> Explosive gases are produced when aluminium comes into contact with halogenized hydrocarbons</p> <p>→ To clean aluminium, do not use liquids containing halogenized hydrocarbons.</p>

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1. Relieve the pressure of gun and unit.
2. Secure gun (remove the control air hose).
3. Connect the system to the detergent supply.
4. Remove AirCoat nozzle and clean separately (see chapter 5.4.3).
5. Pressurize the cleaning supply to approx. 4 MPa; 40 bar; 580 psi and thoroughly flush the spray gun.
6. Relieve the pressure of gun and unit!
7. Secure gun (remove the control air hose).
8. Clean external the spray gun with a cleaning agent recommended by the manufacturer and dry with a cloth or blow gun.

**6.2 REPLACING THE PAINT HOSE**

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

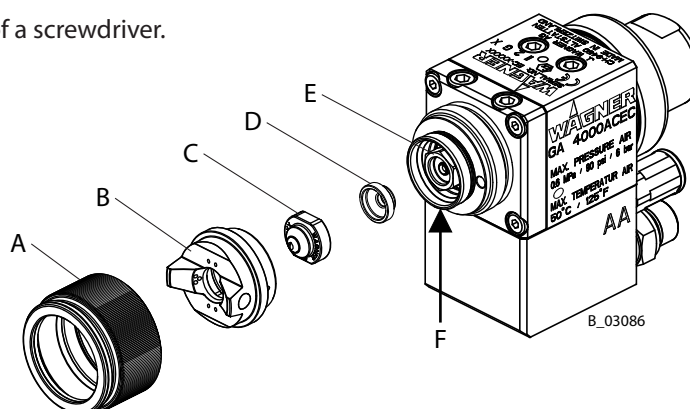
**6.3 REPLACING THE NOZZLE SEAL****CAUTION****Forming air and atomizer air not separate!**

Poor spray pattern  
Spray jet cannot be adjusted

→ Treat the distributor seal (F) with care.

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1. Finishing work and cleaning.
2. Relieve the pressure of gun and unit.
3. Secure gun (remove the control air hose).
4. Screw off the 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. Assembly in reverse order.

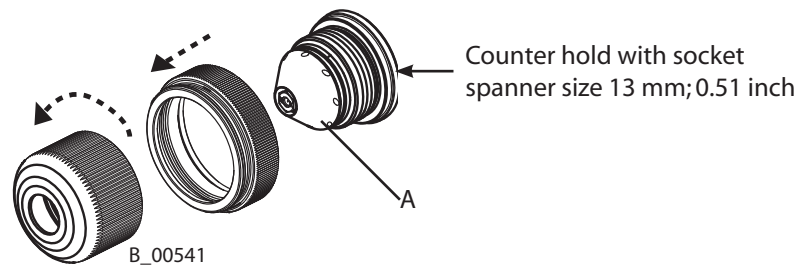
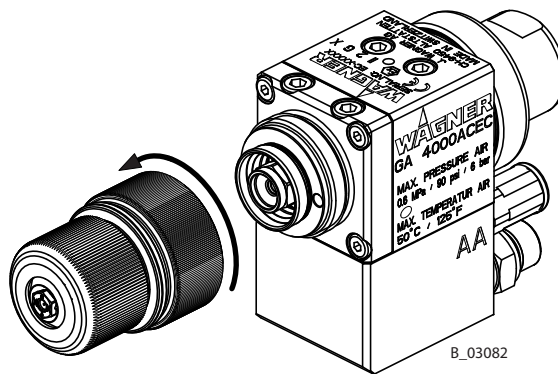


**6.4 CHANGING ROUND JET SEALING NIPPLE**

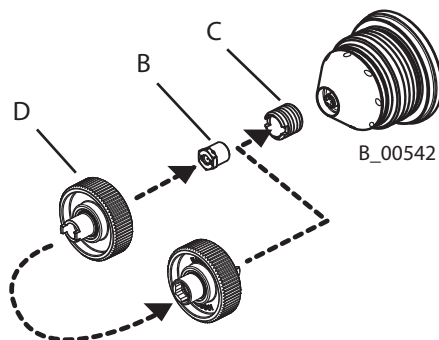
<b>CAUTION</b>
<p><b>Defective nozzle body!</b>                  Poor spray pattern</p> <p>→ Handle the nozzle body (A) with care.</p>

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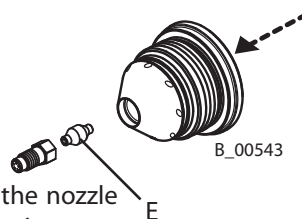
Unscrew by hand the nozzle



Nozzle spanner (D)  
 Part No. 128901



Remove with pin Ø 1.5 mm; 0.06 inches



**Note:**

The sealing nipple (E) can be unscrewed from the nozzle housing using a small eye wood bolt pushed into it

**6.5 REPLACING PARTS OF THE GUN BODY**

**6.5.1 DISASSEMBLY GA 4000ACEC**

**CAUTION**

**Defective plunger shaft!**

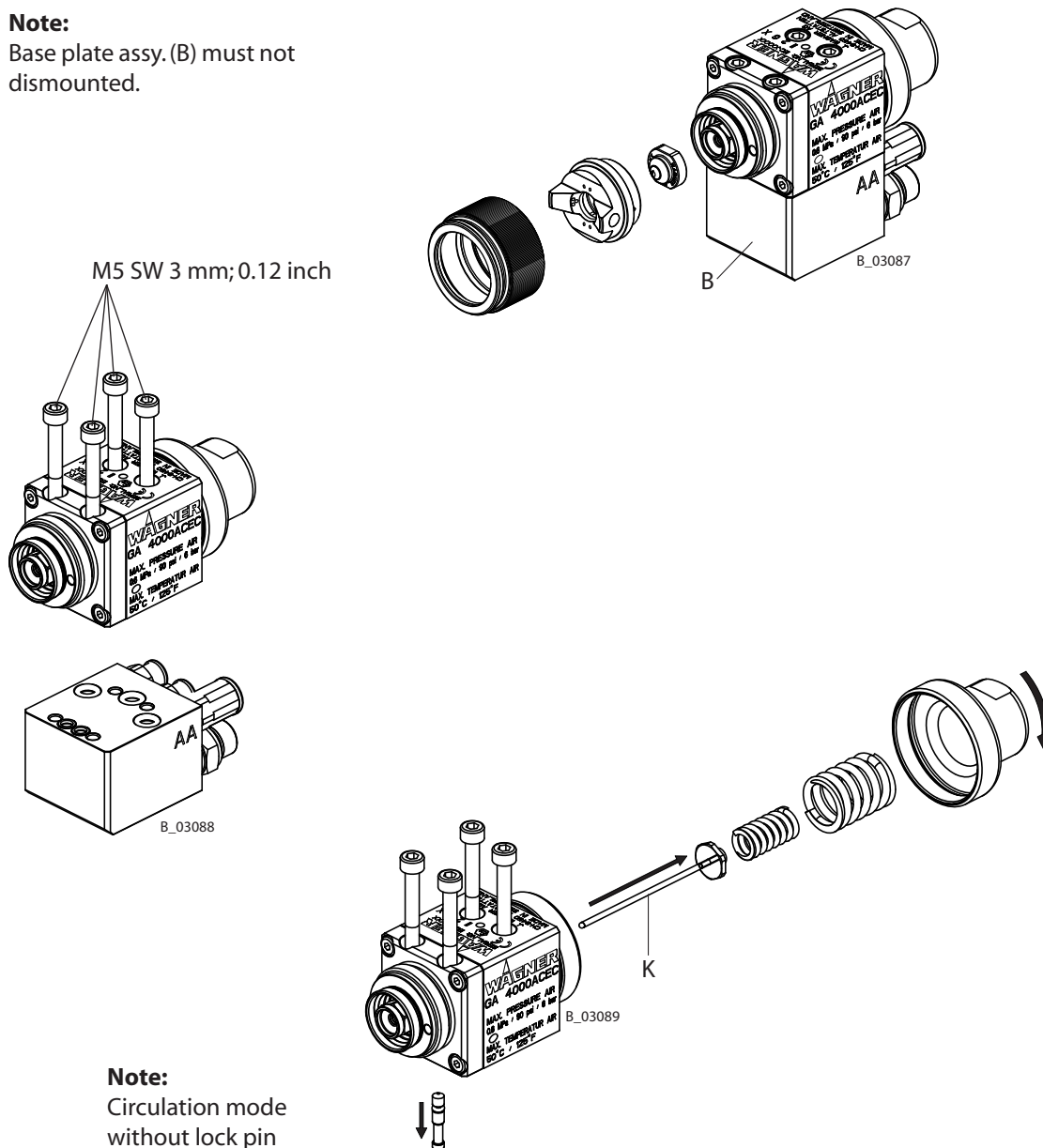
Packing leaks  
Greater wear on the packing

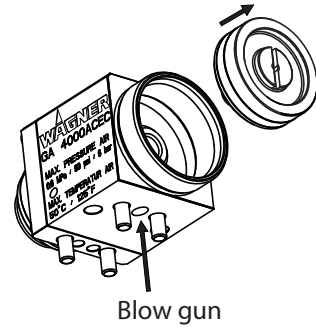
→ Handle the plunger shaft (K) with care.  
The plunger shaft has the function of a sliding surface.

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**Note:**

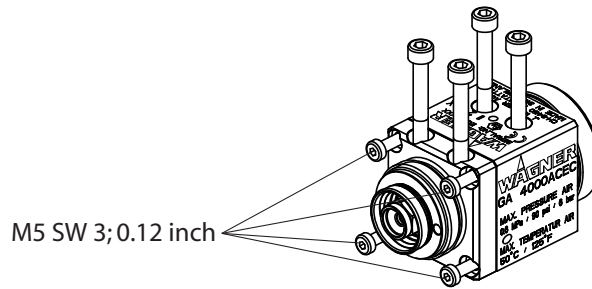
Base plate assy. (B) must not be dismantled.





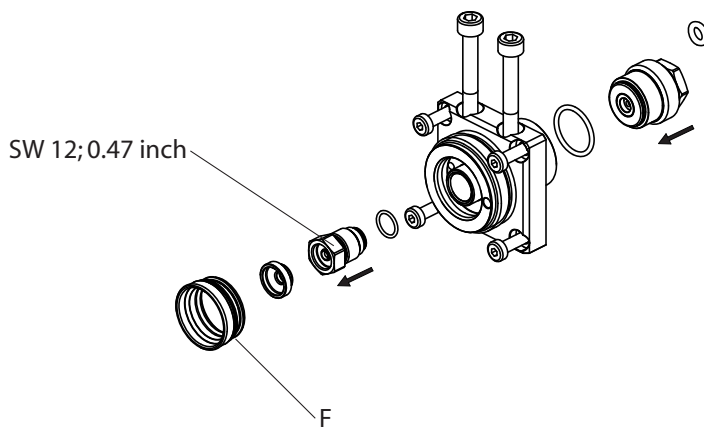
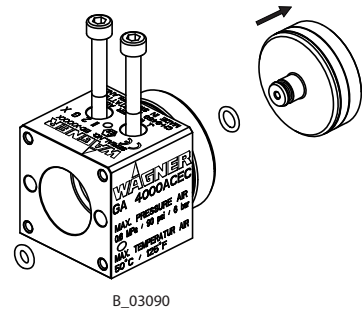
**Note:**

Stuck components can be pushed out with a drift maxi. Ø 3 mm; 0.12 inch.



**Note:**

Pull the damaged seal (F) out using a pliers.

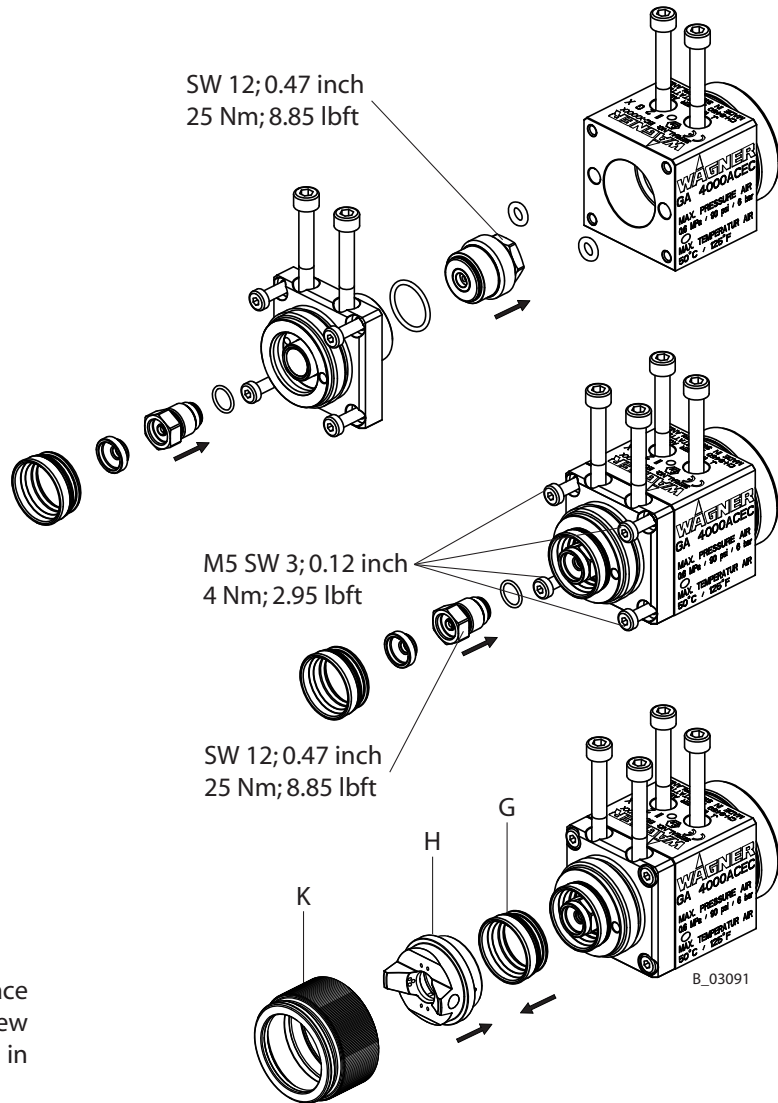




**6.5.2 ASSEMBLING GA 4000ACEC**

**General note:**

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



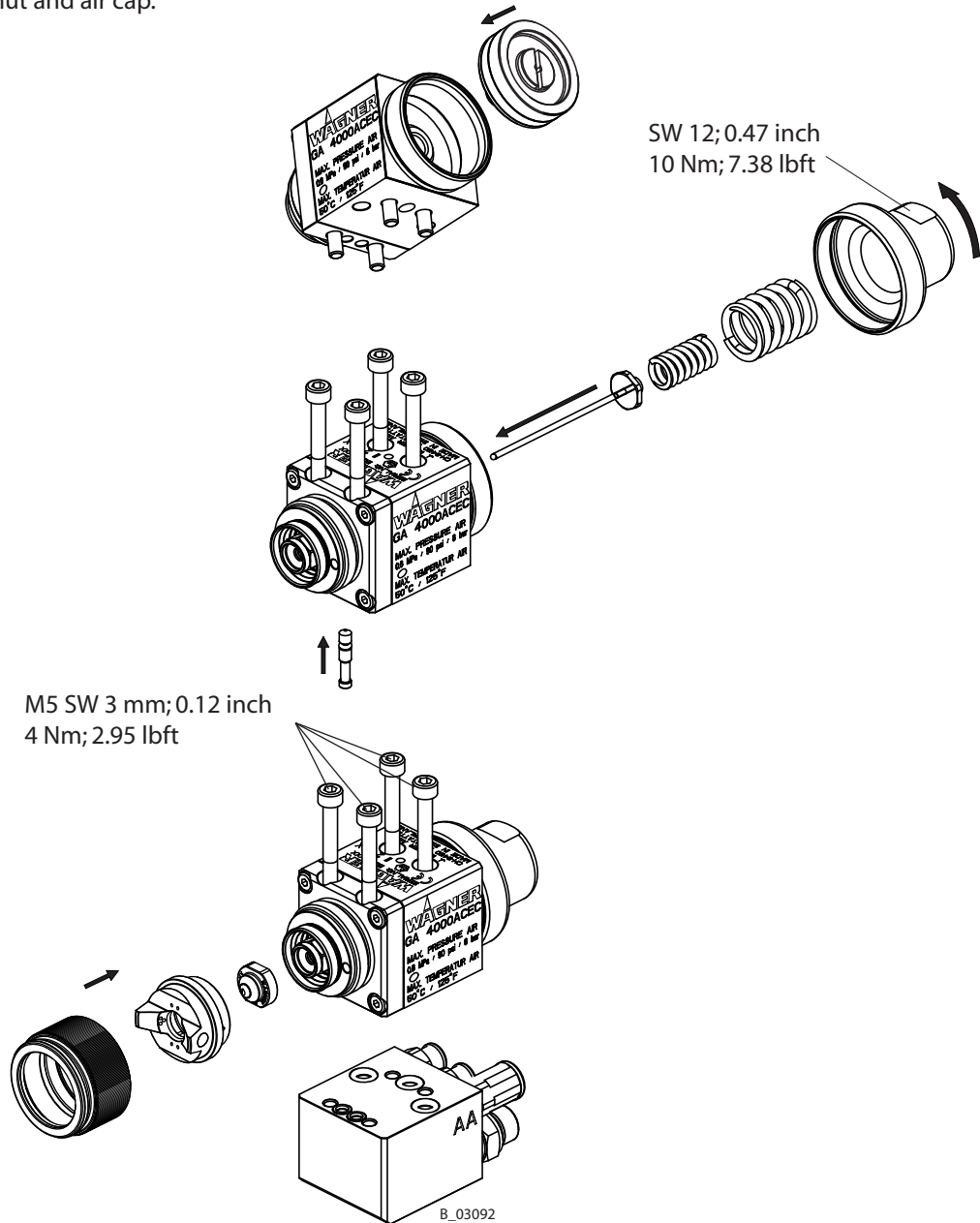
**Note:**

Put the seal (G) on the Air-cap (H) and place seal and air cap into gun housing. Screw union nut (K) in as far as the seal ring in the groove catches (Snap hearable).

	<b>! WARNING</b>
	<p><b>The plug (P) is under high pressure!</b> The plug can fly off like a projectile</p> <p>→ In NC mode (without material circulation), connect the gun only with the closing pin (O) fitted.</p>

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Dismount union nut and air cap.



## 7 TROUBLE SHOOTING AND SOLUTION

<b>Problem</b>	<b>Cause</b>	<b>Remedy</b>
Insufficient material output	Nozzle too small	Select larger nozzle (see paragraph 8.1)
	Material pressure too low	Increase material pressure
	Nozzle is clogged	Nozzle cleaning (see paragraph 5.4.5)
	Valve stem defective	Increase the control air pressure - or - Replace valve rod (see paragraph 6.4.2)
Poor spray pattern	Wrongly adjusted atomizing air	Readjust the atomizing air (see paragraph 5.4.1)
	Nozzle too large	Select smaller nozzle (see paragraph 8.1)
	Material pressure too low	Increase pressure at pump
	Material viscosity too high	Thin material in accordance with the manufacturer's instructions
	Partial nozzle blockage	Nozzle cleaning (see paragraph 5.4.5)
	Wrongly adjusted shaping air	Readjust shaping air
	Air cap faulty (blocked holes, damaged seal)	Clean or replace air cap
	Wrong air cap type	Replace as required air cap (high viscosity/ low viscosity)
Air valve leaks/ Air leakage	Air valve seals damaged	Replace air valve seals (see paragraph 6.3)
Packing leaks	Pretension too low	Replace packing
Spray gun will not shut-off correctly / Material valve leaks	Worn valve seat / valve ball	Replace parts

## 8 ACCESSORIES

### 8.1 AIRCOAT NOZZLES ACF3000



R 00071

Part No.	Marking	Bore - $\varnothing$ inch; mm	Spray angle	Application
379107	07/10	0.007-0.18	10°	Natural paint
379207	07/20	0.007-0.18	20°	
379209	09/20	0.009-0.23	20°	Transparent lacquer Oil
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 paint PVC paint
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°	Paints Undercoat Priming paint 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 Rust proofing paint
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 paint Latex paint
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°	

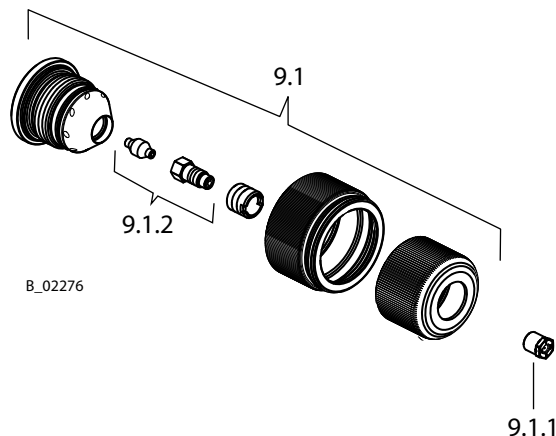


B 00021

Part No.	Marking	Bore - $\varnothing$ inch; mm	Spray angle	Application
379219	19/20	0.019-0.48	20°	Rust proofing paint Latex paint
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 paint Zinc dust coating Rust proofing paint 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°	
379631	31/60	0.031-0.79	60°	
379831	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°	

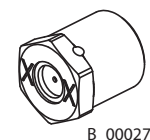
**8.2 ROUND-JET NOZZLE CAP**

Part No.	Description
394180	Round-jet nozzle cap (Without nozzle insert)



**8.2.1 NOZZLE INSERTS RXX**

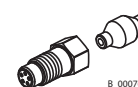
Part No.	Description	Marking	Jet- $\phi$ **
132720	Nozzle insert R11	11	approx. 250; 9.84
132721	Nozzle insert R12	12	approx. 250; 9.84
132722	Nozzle insert R13	13	approx. 250; 9.84
132723	Nozzle insert R14	14	approx. 250; 9.84
132724	Nozzle insert R15	15	approx. 250; 9.84
132725	Nozzle insert R16	16	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; inches at a distance of 30 cm; 11.8 inches from the object and at a pressure of 10 MPa; 100 bar; 1450 psi, synthetic resin paint, 20 DIN4 seconds

**8.2.2 NOZZLE SCREWED CONNECTION COMPLETE**

Part No.	Description
132922	Nozzle screwed connection complete

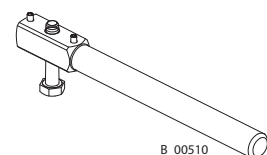


**8.3 HOSES**

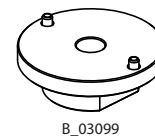
Part No.	Description
9984405	High pressure hose M16x1.5, DN 4 mm; ID 0.16 inch 1 m; 3.28 ft, 27 MPa; 270 bar; 3916 psi
9984507	High pressure hose M16x1.5, DN 6 mm; ID 0.24 inch 15 m; 49.21 ft, 27 MPa; 270 bar; 3916 psi
9984510	High pressure hose M16x1.5, DN 4 mm; ID 0.16 inch 7.5 m; 24.61 ft, 27 MPa; 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 A-ø 6 mm; AD 0.24 inch / I-ø 4 mm; ID 0.16 inch polyamide, order by the meter
9982061	Air hose blue A-ø 6 mm; AD 0.24 inch / I-ø 4 mm; ID 0.16 inch polyamide, order by the meter
9982033	Air hose green A-ø 6 mm; AD 0.24 inch / I-ø 4 mm; ID 0.16 inch polyamide, order by the meter
9982062	Air hose blue A-ø 8 mm; AD 0.32 inch / I-ø 5.5 mm; ID 0.22 inch polyamide, order by the meter

**8.4 MISCELLANEOUS**

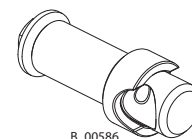
Part No.	Description
9997001	Nozzle cleaning brush
8612001	Nozzle cleaning needle set (12 pieces)
123446	Double nipple M16x1.5 for extension for material hose
367560	Double nipple NPSM 1/4" for extension for material hose
380941	Holder standard 180 mm, Ø 16 mm; 7.1 inch, Ø 0.63 inch



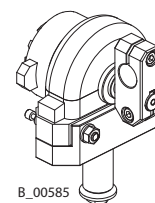
Part No.	Description
2314079	Adapter plate Cefla
380942	Gun holder turnable (standard)
380945	Gun holder turnable 40/40/5
380943	Swivel drive assy.
380944	Cross attaching piece for swivel drive



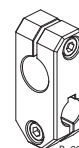
B\_03099



B\_00586



B\_00585



B\_00584



## 9 SPARE PARTS

### 9.1 HOW TO ORDER SPARE PARTS?

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

#### Part Number, description and quantity

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


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

- Address for the invoice
- Address for delivery
- Name of the person to be contacted in the event of any queries
- Type of delivery required (air freight or mail, sea route or overland route, etc.)

#### Marks in spare parts lists

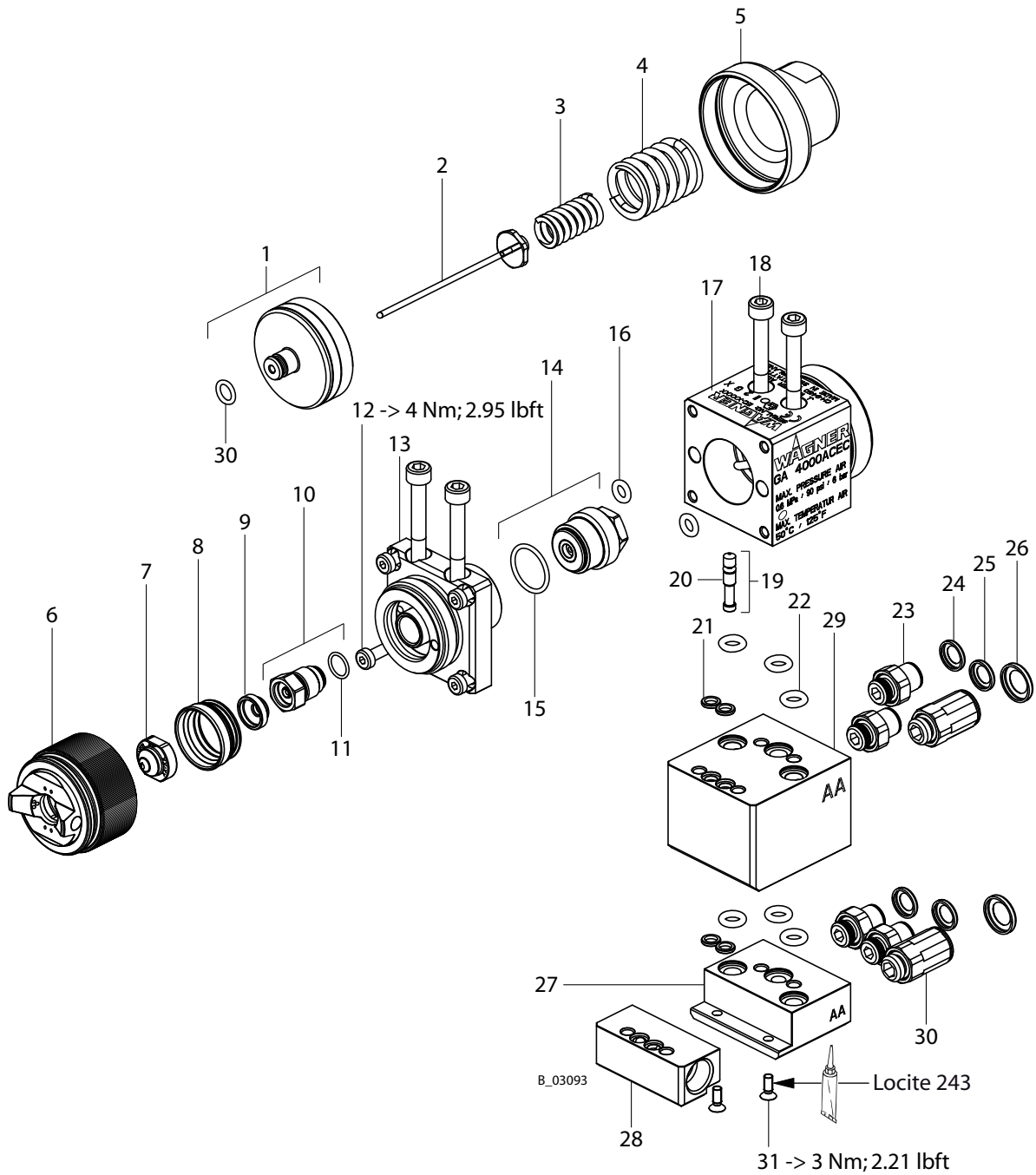
Note to column „K“ in the following spare parts lists.

- ◆ = Wearing parts  
**Note:** No liability is assumed for wearing parts
- = Not part of standard equipment, available, however, as additional extra.

	<b>! WARNING</b>
	<p><b>Incorrect maintenance/repair!</b> Risk of injury and damage to the equipment</p> <ul style="list-style-type: none"> <li>→ Repairs and part replacement may only be carried out by specially trained staff or a WAGNER service center.</li> <li>→ Before all work on the unit 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 unit.</li> <li>- Secure the spray gun against actuation.</li> </ul> </li> <li>→ Observe the operating and service instructions when carrying out all work.</li> </ul>

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**9.2 SPARE PARTS LIST GA 4000ACEC**



Spare parts list			GA 4000ACEC C		GA 4000ACEC NC	
Pos	K	Description	Qty	Part No.	Qty	Part No.
1	◆	Piston EC assy.	1	2314302	1	2314302
2	◆	Valve rod EC assy.	1	2314301	1	2314301
3	◆	Screw spring	1	2309945	1	2309945
4	◆	Screw 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
7	●	Nozzle AC	1	379...	1	379...
8	◆	Sealing ring	1	394339	1	394339
9	◆	Sealing ring Nozzle	1	364328	1	364328
10	◆	Valve seat assy.	1	2314279	1	2314279
11	◆	O-ring	1	9974245	1	9974245
12		Cheese head screw	4	2307893	4	2307893
13		Head piece	1	2314278	1	2314278
14	◆	Packing standard	1	2313516	1	2313516
15	◆	O-ring	1	367528	1	367528
16	◆	O-ring	2	9974153	2	9974153
17		Piston housing EC	1	2314303	1	2314303
18		Cheese head screw	4	2308292	4	2308292
19	●	Lock pin material channel assy.	-	-	1	2310534
20	◆	O-ring	-	-	1	2307873
21	◆	Seal Material	2	2310473	2	2310473
22	◆	O-ring	3	9974265	3	9974265
23		Straight screw in connection	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	2314261	1	2314261
28		Material adapter plate	1	2314257	1	2314257
29		Base plate	1	2314246	1	2314246
30	◆	O-ring	1	248314	1	248314
31		Countersunk head screws with female hexagon	2	2310556	2	2310556

◆ = Wearing part

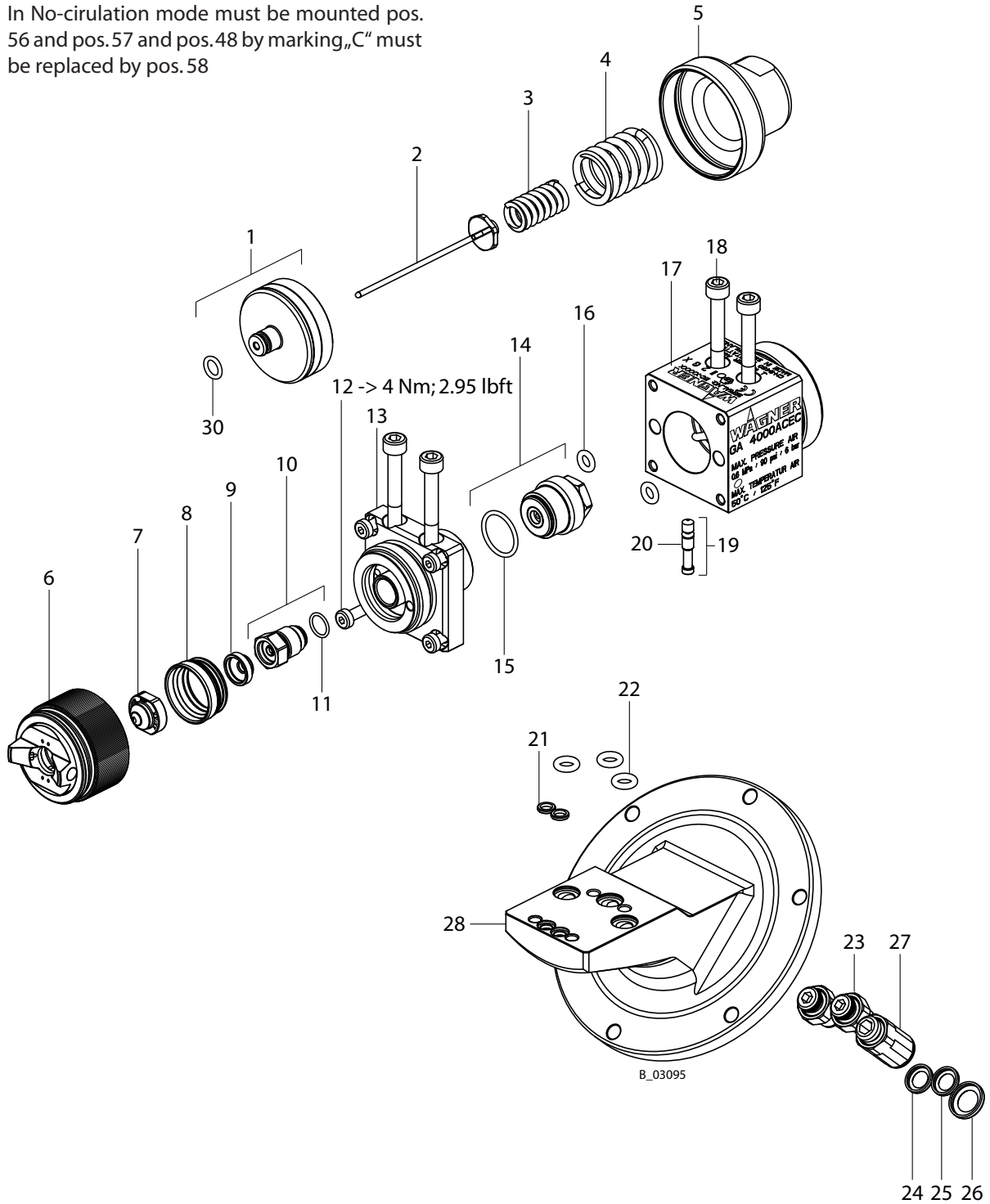
● = Included are not in the basic equipment, available, however, as additional extra

Service sets, see chapter 9.4

**9.3 SPARE PARTS LIST GA 4000ACEC ROBOT**

**Note:**

In No-circulation mode must be mounted pos. 56 and pos.57 and pos.48 by marking „C“ must be replaced by pos.58



Spare parts list		Robot EC C		Robot EC NC		
Pos	K	Description	Qty	Part No.	Qty	Part No.
1	◆	Piston EC assy.	1	2314302	1	2314302
2	◆	Valve rod EC assy.	1	2314301	1	2314301
3		Screw spring	1	2309945	1	2309945
4		Screw 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
7	●	Nozzle AC	1	379...	1	379...
8	◆	Sealing ring	1	394339	1	394339
9	◆	Sealing ring Nozzle	1	364328	1	364328
10	◆	Valve seat assy.	1	2314279	1	2314279
11	◆	O-ring	1	9974245	1	9974245
12		Cheese head screw	4	2307893	4	2307893
13		Head piece	1	2314278	1	2314278
14	◆	Packing standard	1	2313516	1	2313516
15	◆	O-ring	1	367528	1	367528
16	◆	O-ring	2	9974153	2	9974153
17		Piston housing EC	1	2314303	1	2314303
18		Cheese head screw	4	2308292	4	2308292
19	◆	Lock pin material channel assy.	-	-	1	2310534
20	◆	O-ring	-	-	1	2307873
21	◆	Seal Material	2	2310473	2	2310473
22	◆	O-ring	3	9974265	3	9974265
23		Straight screw in connection	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 connection	1	9998993	1	9998993
28		Base plate	1		1	
30	◆	O-ring	1	248314	1	248314

◆ = Wearing part

● = Included are not in the basic equipment, available, however, as additional extra

Service-Sets see chapter 9.4

#### **9.4 SERVICE-SETS AND SPARE PART MODULES**

<b>Part No.</b>	<b>Description</b>	<b>Consisting of spare parts positions</b>
2314950	Service-Set Base plate	21, 22









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Order number 2311057

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