



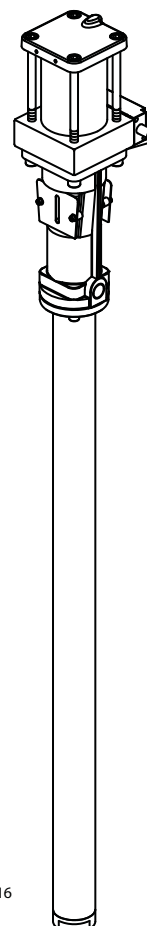
**Translation of the original
Operating manual**

EvoMotion 5 - 125

Edition 04/2011

Piston pump

Feed volume 125 ccm



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1 ABOUT THESE INSTRUCTIONS

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

→ Always follow these instructions when operating the unit.

1.1 LANGUAGES

This operating manual is available in the following languages:

Language:	Part No.	Language:	Part No.
German	2316595	English	2316596
French	2316597	Dutch	2316598
Italian	2316599	Spanish	2316600
Danish	2316602	Swedish	2316601

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:

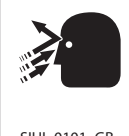
Danger - imminent danger. Non-observance will result in death, serious injury and serious material damage.

	⚠ DANGER This line warns of the hazard! Possible consequences of failing to observe the warning instructions. The signal word points out the hazard level. → The measures for preventing the hazard and its consequences.
---	--

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

	⚠ WARNING This line warns of the hazard! Possible consequences of failing to observe the warning instructions. The signal word points out the hazard level. → The measures for preventing the hazard and its consequences.
---	---

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

	⚠ CAUTION This line warns of the hazard! Possible consequences of failing to observe the warning instructions. The signal word points out the hazard level. → The measures for preventing the hazard and its consequences.
---	---

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

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

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.

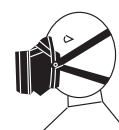


2.1.2 PERSONNEL QUALIFICATIONS

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

2.1.3 A SAFE WORK ENVIRONMENT

- Make sure that the floor in the area where you are working is derivable in accordance with EN 61340-4-1.
- Ensure that all persons within the working area wear derivable shoes.
- Ensure that during spraying, persons wear derivable gloves so that they are earthed via the handle of the spray gun.
- Customer to provide paint mist extraction units 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:

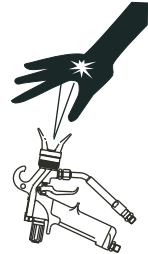
- Never point the spray gun at people.
- Never reach into the spray jet.
- Before all work on the unit, in the event of work interruptions and functional faults:
 - Switch off the energy/compressed air supply
 - Secure the spray gun against actuation.
 - Relieve the pressure from the spray gun and unit.
 - By functional faults: If possible, remove the defect as described in chapter „Trouble shooting“, otherwise apply to an authorised after-sale service point.

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

Depending on the electrostatic charge and the flow speed of the spray, an electrostatic charge may occur in the equipment. This could cause a spark or flame on discharging.

- Ensure that the unit is earthed for every spraying operation.
- Earth the work pieces being painted.
- Ensure that all persons inside the working area are earthed, e.g. that they are wearing derivable shoes.
- When spraying, wear derivable 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/EC (ATEX 95), the unit is suitable for use in areas where there is an explosion hazard.



II 2G IIB c T3 X

CE: Communautés Européennes

Ex: Symbol for explosion protection

II: Unit class II

2: Category 2 (Zone 1)

G: Ex-atmosphere gas

IIB: Explosion group

c: Constructional security

T3: Temperature class: maximum surface temperature < 200 °C; 392 °F.

X: Special Notes (see chapter 2.4.3)



2.4.3 IDENTIFICATION MARK "X"

Maximum surface temperature

The maximum surface temperature of the piston pump can be reached if it runs dry.

- Ensure that the piston pump is filled with sufficient working or cleaning medium.
- Ensure that the separating fluid container is filled with sufficient separating fluid.

Ignition temperature of the coating material

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

Ambient temperature

- The permissible ambient temperature is +5 °C to +60 °C; +41 °C to 140 °F

Medium supporting atomizing

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

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 unit.
- Use only tools that are made of a permitted material.

Surface spraying, electrostatic

→ Do not spray unit parts with electrostatic (e.g. electrostatic spray gun).

**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.
- Use only a damp cloth to clean the unit.



3 GUARANTEE AND CONFORMITY DECLARATIONS

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 36 months in single-shift, 18 months in 2-shift or 9 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, nozzles, 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:
Pneumatic pumps and Spraypacks

EvoMotion
5-125

Complies with the following guidelines:

2006/42/EEC	94/9/EEC
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Applied standards, in particular:

DIN EN ISO 12100-1:2004	DIN EN ISO 13732-1:2008	DIN EN 1127-1:2008	DIN EN 13463-5:2004
DIN EN ISO 12100-1/A1:2009	DIN EN 809:2011	DIN EN 12621:2006	
DIN EN ISO 12100-2:2004	DIN EN 14462:2005	DIN EN 12621/A1:2010	
DIN EN ISO 12100-2/A1:2009	DIN EN ISO 14121-1:2007	DIN EN 13463-1:2009	

Applied national technical standards and specifications, in particular:

BGR 500 Part 2 chap. 2.29 and chap. 2.36	BGR 104	TRBS 2153
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Identification:

**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:

2312813

4 DESCRIPTION

4.1 FIELD OF APPLICATION

4.1.1 CORRECT USE

The pneumatic piston pump is suitable for conveying and processing liquid materials in accordance with section 4.1.2.

4.1.2 PROCESSABLE MATERIALS

Application	EvoMotion 5-125
Water-based materials	↗
Solvent-based materials	↗
Low viscosity (<40 sec. DIN No. 4)	↗
Medium viscosity (40 to 60 sec. DIN No. 4)	↗
High viscosity (>60 sec. DIN No. 4)	↗
UV sensitive materials	⇒
Shear sensitive materials	↘
Humidity sensitive materials	↘

Legend:

recommended ↗

limited suitability ⇒

less suitable ↘

CAUTION

Abrasive materials and pigments!

Greater wear of the parts carrying the material

→ Use suitable combinations of devices (packages, valves etc.).

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4.2 SCOPE OF DELIVERY

Pneumatic piston pump
consisting of:

- Material pump
- Air motor
- Connection elements

Separating fluid 250 ml

Declaration of Conformity see

Operating manual German

Operating manual in the local language see

Part No.: 9992504

Chapter 3

Part No.: 2316595

Chapter 1

The delivery note shows the exact scope of delivery.

Accessories: see Chapter 7.

4.3 DATA

4.3.1 MATERIALS OF PAINT WETTED PARTS

Pump housing	Carbon steel
Piston	Carbon steel with silicon carbide trimming
Valve balls	Stainless steel
Valve seats	Stainless steel
Static seals	EPDM
Seal sets	PE/TF
Seal sets	PE/ PTFE

PE = Polyethylene UHMW

TF = (PTFE)

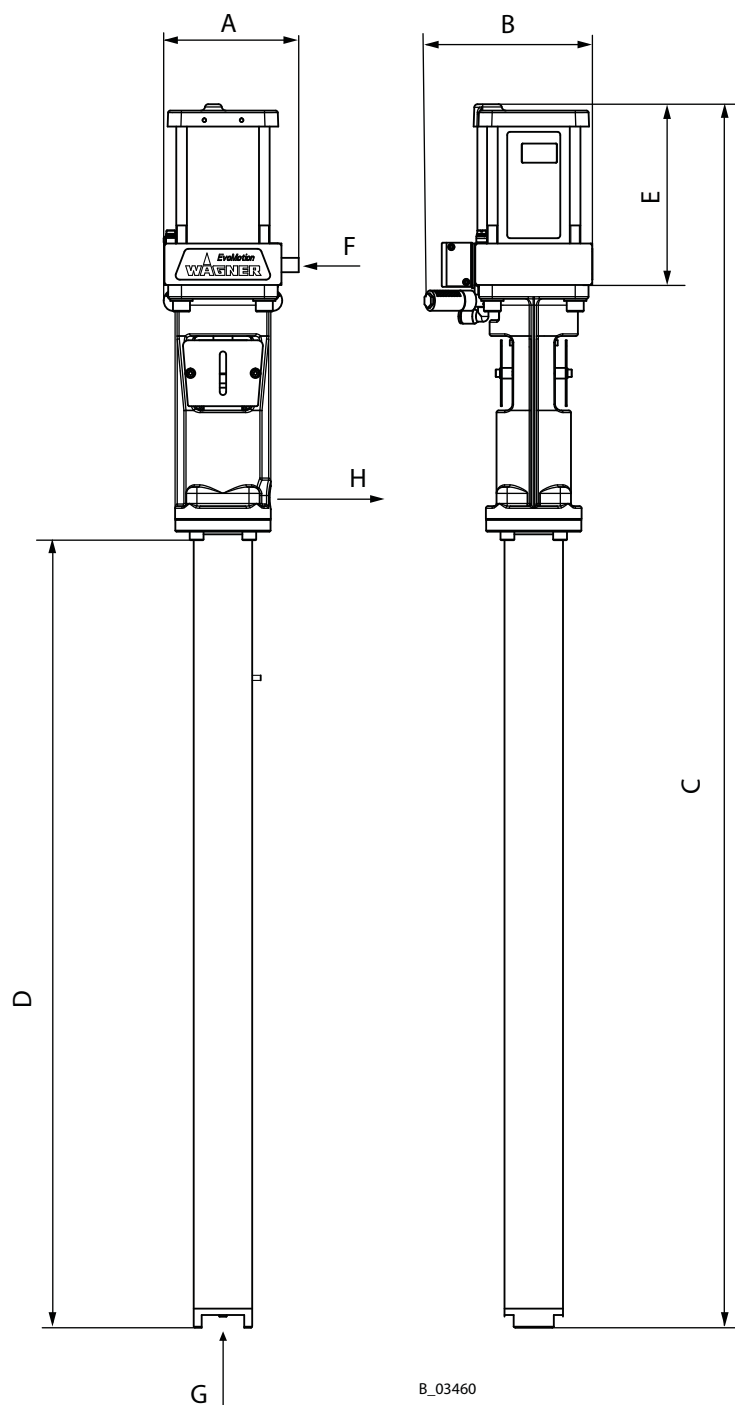
	 WARNING
	Outgoing air containing oil! Risk of poisoning if inhaled Function problem airmotor → Provide water-free and oil-free compressed air (quality standard 5.5.4 as per ISO 8573.1) 5.5.4 = 40 µm / +7 / 5 mg/m³.

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4.3.2 TECHNICAL DATA

Description	Units	EvoMotion 5-125
Transmission ratio		5:1
Flow volume per double stroke (DS)	cm ³ cc	125
Maximum operating pressure	MPa bar psi	4.0 40 581
Maxi. possible strokes in operation	DS/min	60
Min. - Maxi. air inlet pressure	MPa bar psi	0.2-0.8 2-8 28-116
Ø air inlet connection (inside thread)	mm inch	8.0 0.31
Min. Ø compressed air hose	mm inch	9.0 0.35
Air consumption at 0.6 MPa; 6 bar; 87 psi per DS	nl scf	4.0 0.14
Sound pressure level at maximum permissible air pressure*	dB(A)	72
Sound pressure level at 0.6 MPa; 6 bar; 87 psi air pressure*	dB(A)	69
Sound pressure level at 0.4 MPa; 4 bar; 58 psi air pressure*	dB(A)	62
Diameter piston of air motor	mm inch	80 3.15
Material inlet connection (inside thread)	inch	-
Material outlet connection (inside thread)	inch	G 1/2"
Weight	kg lb	25 55
Maxi. material pressure at pump inlet	MPa bar psi	- - -
Material temperature	°C °F	+5 ÷ +80 +41 ÷ +176
Ambient temperature	°C °F	+5 ÷ +60 +41 ÷ +140
Allowable sloping position at work	<) °	± 10

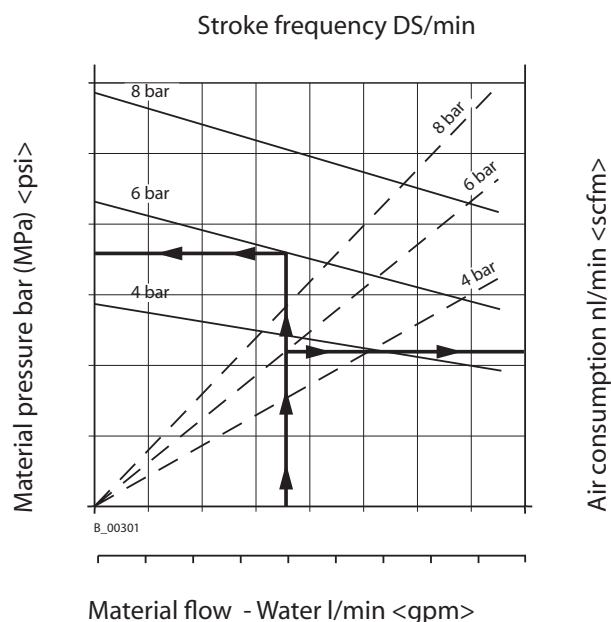
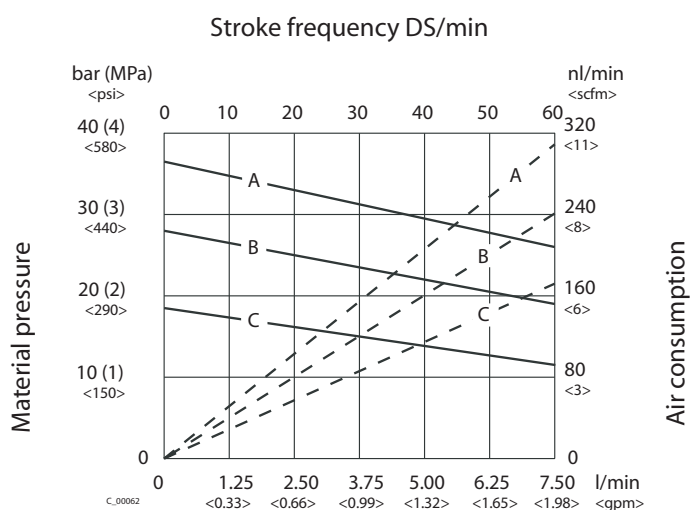
* A rated sound pressure level measured at 1 m distance according to DIN EN 14462: 2005

4.3.3 MEASUREMENTS AND CONNECTIONS

EvoMotion 5-125		
	mm	inch
A	126,5	5.0
B	142	5.6
C	1338,5	52.7
D	944,5	37.2
E	170	6.7
F	ø8	ø0.31
G	-	-
H	-	G1/2"

4.3.4 PERFORMANCE DIAGRAMS

Example

**Diagram EvoMotion 5-125 Stainless steel**

Material flow - Water

A = 8 bar; 0.8 MPa; 116 psi air pressure

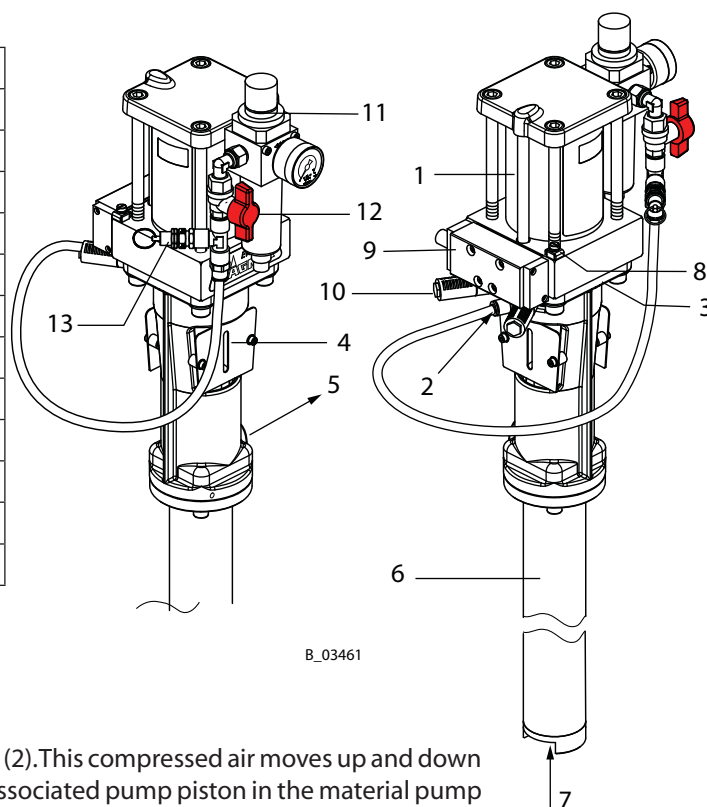
B = 6 bar; 0.6 MPa; 87 psi air pressure

C = 4 bar; 0.4 MPa; 58 psi air pressure

4.4 FUNCTION

4.4.1 PUMP

1	Air motor
2	Air inlet
3	Mounting flange
4	Separating fluid container
5	Material outlet
6	Material pump
7	Material inlet
8	Earth connection
9	Reversal valve
10	Sound absorber
11	Air pressure regulator (option)
12	Ball valve (option)
13	Safety valve Air motor exhaust (option)



B_03461

General informations

The piston pump is driven with compressed air (2). This compressed air moves up and down the air piston in the air motor (1) and also the associated pump piston in the material pump (6). At the end of each stroke, the compressed air flow is redirected by a reverse valve (9). The working material is sucked up during the upwards stroke and at the same time conveyed towards the pressure outlet (5) in both stroke directions.

Air motor (1)

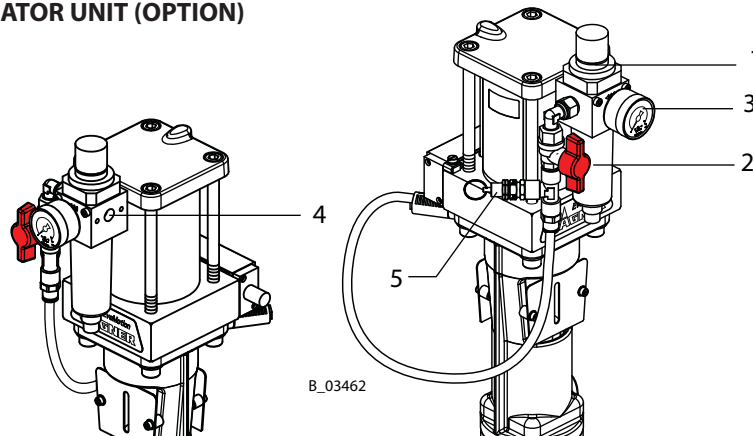
The air motor (1) with its pneumatic reverse (9) does not require pneumatic oil. The compressed air is fed to the motor over the air regulator (11) and the ball valve (12). The air motor is fitted with a safety valve (10). The safety valve has been set and sealed at the factory. With pressures over and above the permissible operating pressure the valve, which is held with a spring, automatically opens and releases the excess pressure.

	! WARNING Overpressure! Risk of injury from bursting components → Never change the safety valve setting.
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Material pump (6)

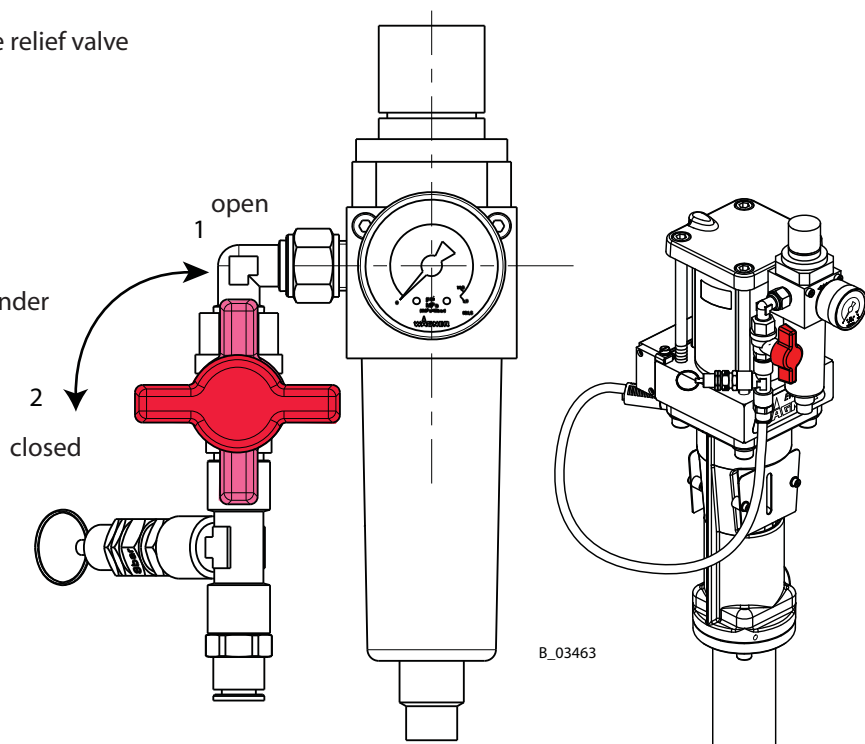
The material pump is designed as piston pump with flap valves. The pump piston runs in the upper being certain packing, which is independently placed behind by a compression spring. Thus a high life span of the packing is obtained. Between air motor and material pump is the distance piece (4). It serves also for the admission of the parting agent.

4.4.2 PRESSURE REGULATOR UNIT (OPTION)

- 1 Pressure regulator
- 2 Ball valve
- 3 Pressure gauge (air inlet pressure)
- 4 Compressed air inlet
- 5 Safety- and motor pressure relief valve

Positions of the ball valve:

- 1 Open:
Working position
- 2 Closed:
The air motor can still be under pressure.



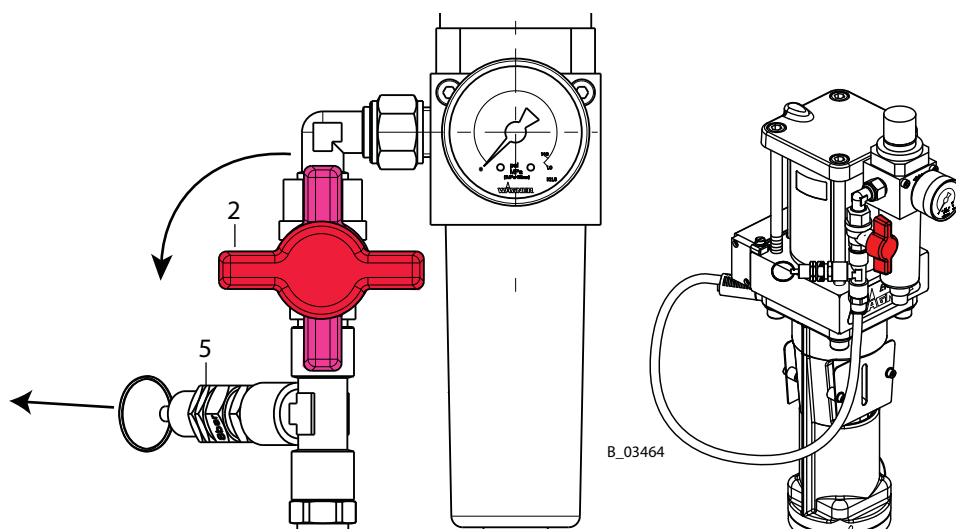
4.4.2.1 SAFETY- AND MOTOR PRESSURE RELIEF VALVE**Safety valve (5)**

The safety valve (5) is set at the works so adjusted that it opens automatically with increase of pressure over the permissible operating pressure over a feather/spring and over-duck discharges.

As well as handling pressure limits, the valve is also used as a pressure relief valve for the air motor.

Procedure:

1. Close ball valve (2).
2. Pull outwards the ring on the safety valve (5) and hold it there until the pressure in the air motor has been equalized.



	! WARNING Overpressure! Risk of injury from bursting components → Frequently check the safety valve efficiency by pulling the ring.
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5 START-UP AND OPERATION

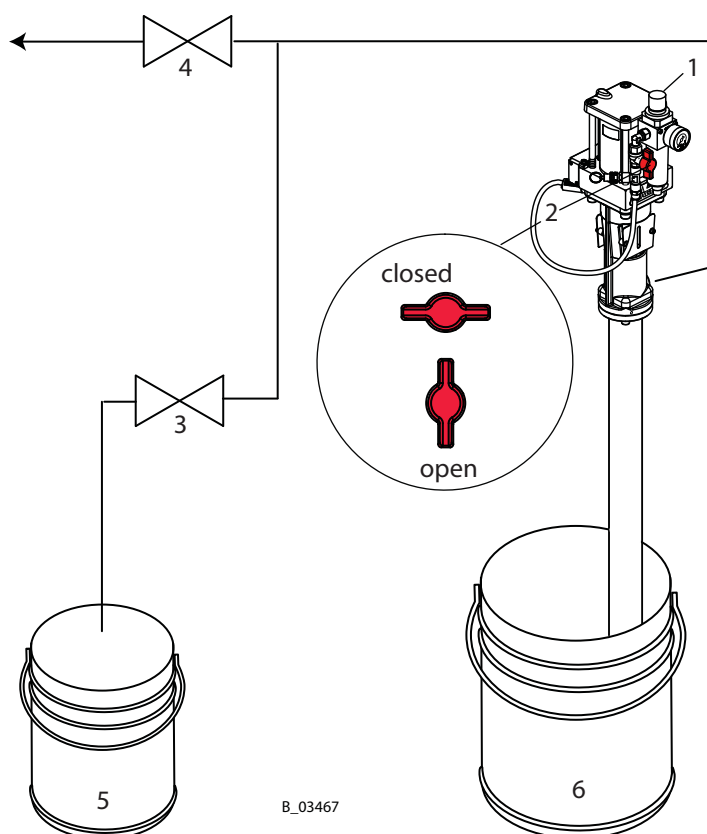
5.1 INSTALLATION AND CONNECTION

Note

This pump can be completed to a spraying system or be used e.g. in a TwinControl unit. Various supplementary components to this pump are to be found in Wagner wet lacquer coating or in the accessory catalogue.

Procedure:

1. Assemble the pump on a stand, a trolley or wall mounting.
2. Install a pressure regulator unit (see chapter 4.4.2).
3. Mount a release valve with pertinent return hose (3).
4. Install a suitable product non-return valve (4) on the discharge opening line.
5. Pump into the product container put into (6).
6. Provide an empty container (5).



! WARNING

Inclined surface!

Risk of accidents if the unit rolls away/falls.

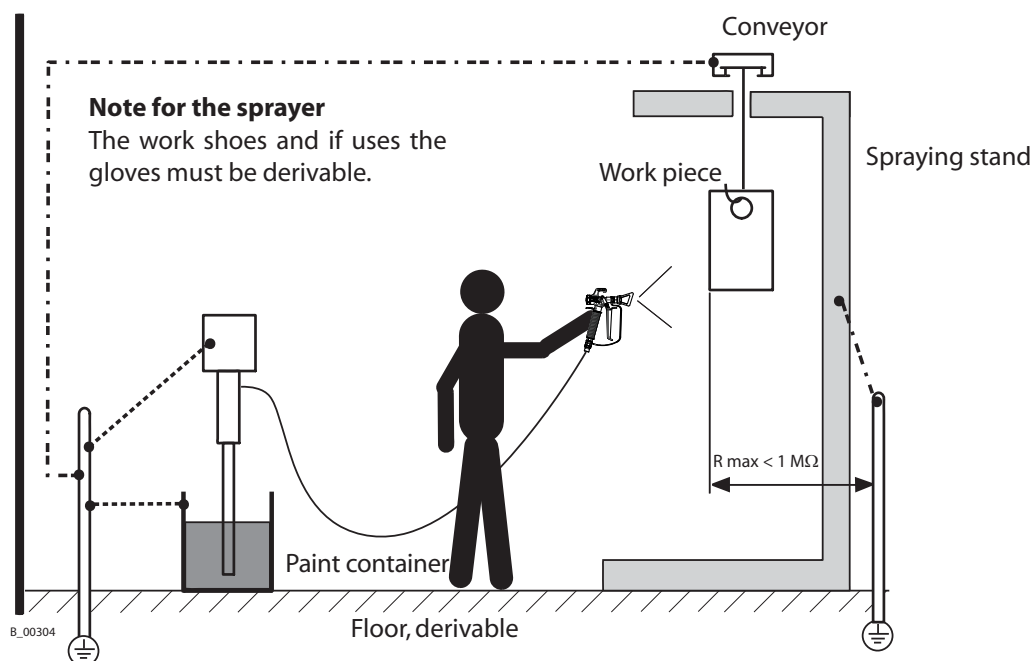
5.1.2 EARTHING

	 WARNING
	Discharge of electrostatically charged components in atmospheres containing solvents! Explosion hazard from electrostatic sparks → Clean the piston pump only with a damp cloth.

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

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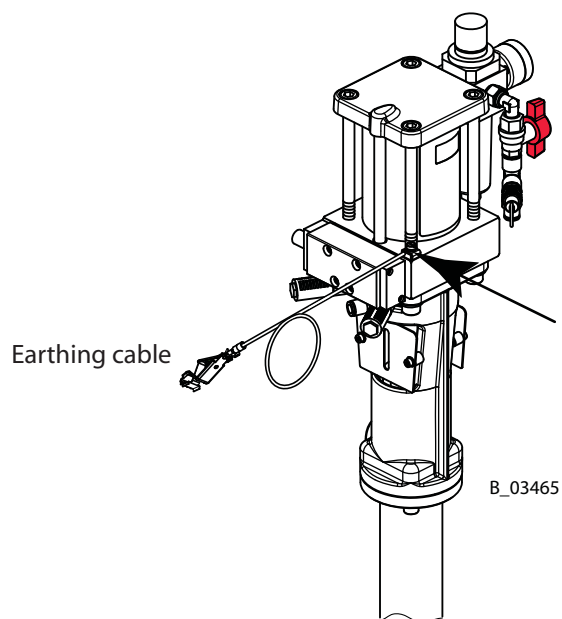
Earthing schema (example)

Cable cross sections

Pump	4 mm ² ; AWG11
Paint container	6 mm ² ; AWG10
Conveyor	16 mm ² ; AWG5
Cabin	16 mm ² ; AWG5
Spraying stand	16 mm ² ; AWG5

Procedure:

1. Screw on earthing cable with eye.
2. Clamp the earthing cable clip to a earth connection on site.
3. Earth the material (paint) container to a local earth connection.
4. Earth the other parts of the system to a local earth connection.

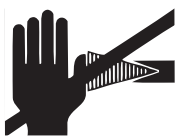


5.2 STARTING OPERATION

5.2.1 SAFETY INSTRUCTIONS

Every time before starting up the following points should be observed as laid down in the operating instructions:

- That it is possible to observe the safety regulations in chapter 2.
- The starting up procedure, has been carried out properly.

	! WARNING High-pressure spray jet! Danger to life from injecting paint or solvent → Never reach into the spray jet. → Never point the spray gun at people. → Consult a doctor immediately in the event of skin injuries caused by paint or solvent. Inform the doctor about the paint or solvent used. → Never seal defective high-pressure parts, instead relieve the pressure from them and replace.
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	! WARNING Toxic and/or flammable vapor mixtures! Risk of poisoning and burns → 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.
---	--

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	! WARNING Gas mixtures can explode if there is an incompletely filled pump! Danger to life from flying parts → Ensure that the pump and suction system are always completely filled with cleaning agent or working medium. → Do not spray the unit empty after cleaning.
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Before every start-up, the following points should be observed:

- Check the permissible pressures
- Check all connections for leaks
- Check hose for damage

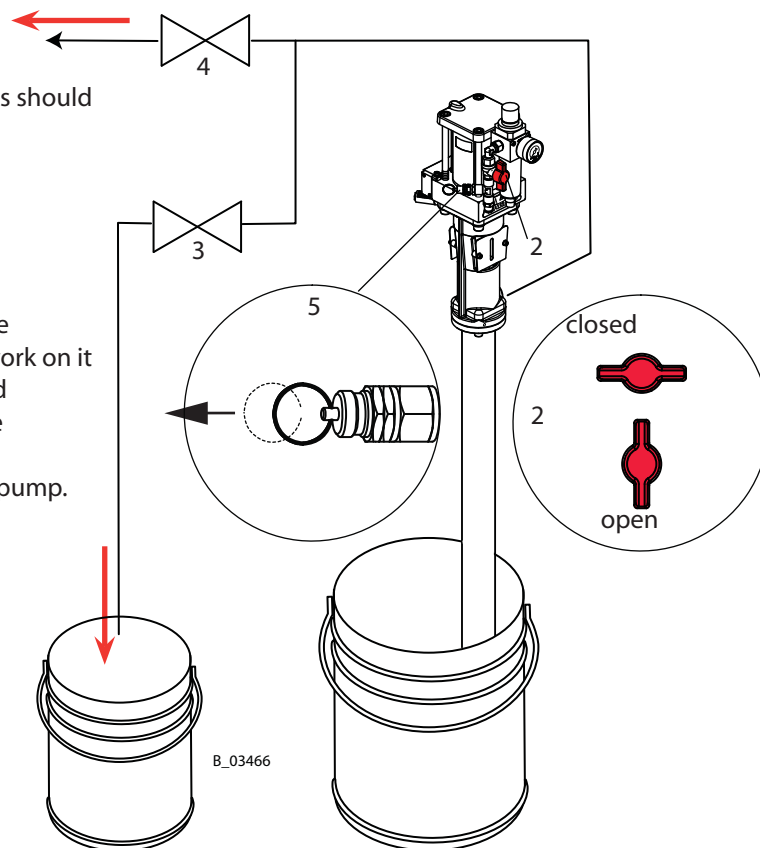
It should be ensured that the unit is in the following state before carrying out any work on it

- The air supply (2) should be interrupted
- Relieve the air motor totally of pressure (pull out ring on safety valve (5)).
- Relieve the pressure from the material pump.

Emergency Stop

In the case of unforeseen occurrences the ball valve (2) should be closed immediately.

Open the safety valve (5) and relieve the material-conveying parts (3 and 4) completely of pressure.



5.2.2 FILLING UP WITH SEPARATING FLUID

CAUTION

Piston pump dry run!

High wear/damage to the packages
Paint or solvent can escape if the seals are dry

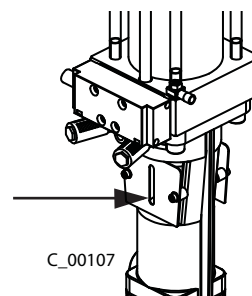
- Ensure that the separating agent container is filled with sufficient separating agent.
Filling level 1 cm; 0.4 inch under the pot edge.

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The supplied separating agent is poured into the special opening.

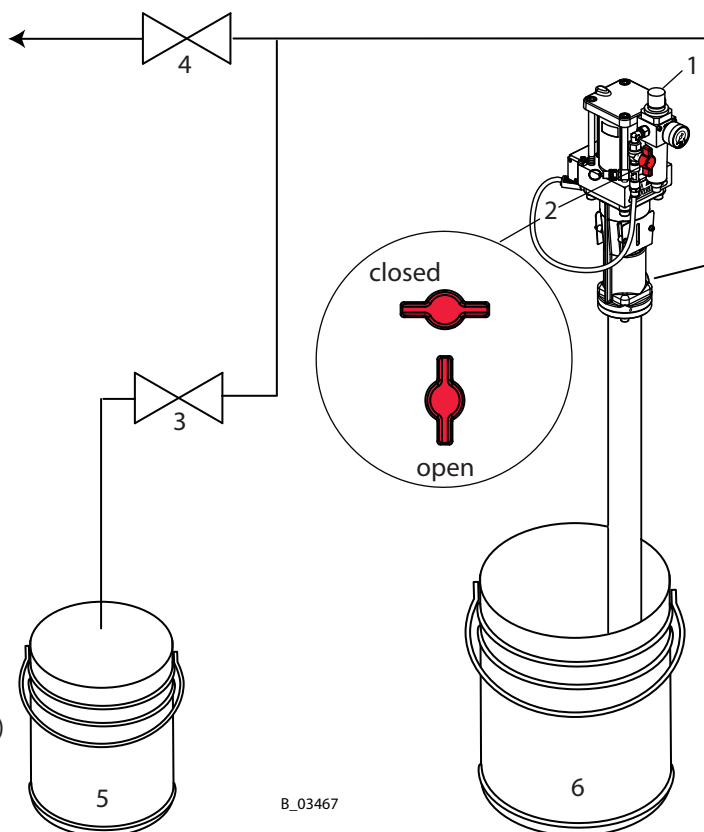
Note

Maximum permissible inclination of pump for moving, transportation etc. after filling with release agent is $\pm 30^\circ$. During the operation it must standing vertical.



5.2.3 BASIC CLEANING

1. Place empty container (5) under return tube (3).
2. Dive in the pump in containers with cleaning agent (6).
3. Set pressure regulator (1) to approx. 0.05 MPa; 0.5 bar; 7.25 psi.
4. Open return valve (3).
5. Slowly open ball valve (2).
6. Adjust the air pressure on the pressure regulator (1) so that the pump runs regularly.
7. Rinse the system until clean solvent flows into the container (5).
8. Close ball valve (2).
9. Close return valve (3).
10. Open valve (4).
11. Slowly open ball valve (2) and the discharge opening line rinse.
12. Rinse the system until clean flushing agent into the container (5) inside flows.
13. Close the discharge duct (4).
14. Dispose of the contents of the container (5) according to the local regulations.

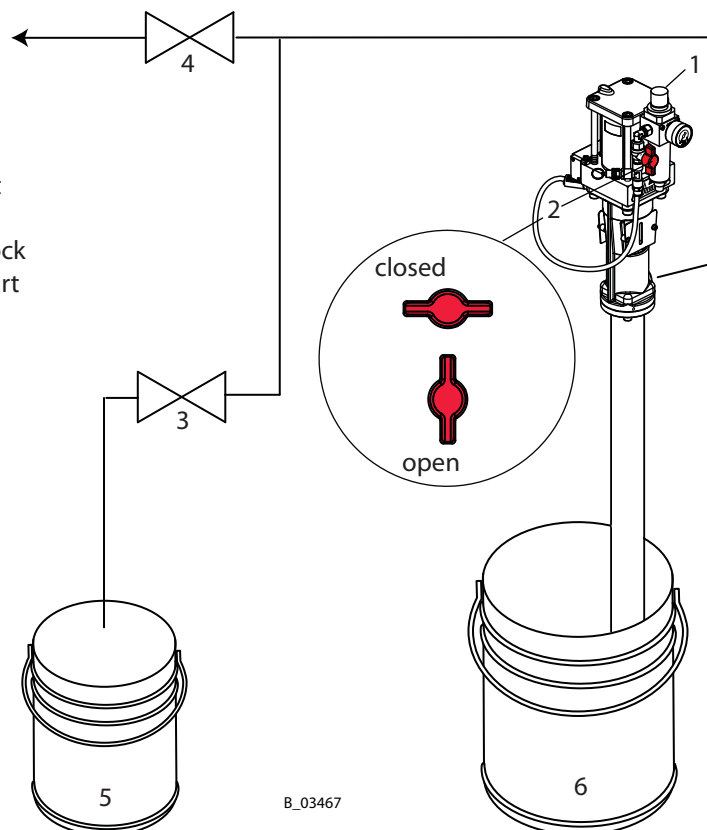
**5.2.4 FILLING WITH WORKING MATERIAL**

1. Put the empty container (5) underneath the outlet to the return flow valve (3).
2. Dive in the pump in the container with working material (6).
3. Open return valve (3).
4. Slowly open ball valve (2).
5. Adjust the air pressure on the pressure regulator (1) so that the pump runs regularly.
6. Close the ball valve (2) as soon as pure working material starts coming from the return (3).
7. Close return valve (3).
8. Open the product exhaust valve (4).
9. Slowly open ball valve (2) and fill the discharge opening line.
9. If pure material without bubbles flows, close the ball valve (2) and depressurizing the system. The return valve open (3) or the safety and pressure relief valve operate.
10. When the system is not under pressure, close the discharge duct (4).
11. Dispose of the contents of the container (5) according to the local regulations.

5.3 WORKS

5.3.1 FUNCTIONING

1. Close valve (3).
2. Slowly open ball valve (2).
3. Open valve (4).
4. Activate the pressure regulator (1) and set the required operating pressure.
5. Open and close the valve (4) and/or the lock units on the discharge duct in order to start and interrupt the flow of the material.



5.3.2 BREAKS IN WORK

1. Close valve (4) and/or the lock units on the discharge duct.
2. Close ball valve (2).
3. Pressure from the system over the return valve (3) discharge.

If the system has been used with two component material:

	! WARNING Hardened material in the spraying system when 2-component material is worked! Destruction of the pump and injection system → Follow the manufacturer's working instructions, particularly regarding the pot life. → Rinse thoroughly before the end of the pot life. → The potlife time decreases at raising temperature.
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5.3.3 FINISHING WORK AND CLEANING

Note

The device should be cleaned for maintenance purposes, etc. Ensure that no remaining material dries and sticks.

Procedure:

1. Breaks in work -> chap. 5.3.2, carry out.
2. Carry out the basic cleaning -> chap. 5.2.3.
3. Clean the outside of the system.

	 WARNING
	Brittle filter pressure regulator! The container on the filter pressure regulator becomes brittle through contact with solvents and can burst Flying parts can cause injury → Do not clean the container on the pressure regulator with solvent.

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4. Put the whole system back together.
5. Check the level of the separating fluid -> chapter 5.2.2.
6. Fill the system with solvent as laid down in Paragraph 5.2.4 "Filling with working material".

	 WARNING
	Gas mixtures can explode if there is an incompletely filled pump! Danger to life from flying parts → Ensure that the pump and suction system are always completely filled with cleaning agent or working medium. → Do not spray the unit empty after cleaning.

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5.4 LONG-TERM STORAGE

When storing the device for longer periods of time it is necessary to thoroughly clean it and protect it from corrosion. Replace the water or solvent in the material pump with a suitable preserving oil, fill separating fluid cup with separating fluid.

Procedure:

1. Carry out Paragraph 5.3.3 „Shutting down and cleaning“, points 1 through 6.
2. Flushing with preserving agent according paragraph 5.2.3.
3. Protect the air motor with pneumatic oil: connect an oiler to the compressed air inlet and run for a few double strokes.

6 TROUBLE SHOOTING, MAINTENANCE AND REPAIRS

6.1 TROUBLE SHOOTING AND SOLUTION

Problem	Cause	Remedy
The pump does not work	• Air motor does not work or stops	• Open and close ball valve on the pressure regulator unit or disconnect compressed air supply shortly
	• No pressure indication on pressure gauge (pressure regulator defect)	• Disconnect compressed air connection shortly or repair or change pressure regulator
	• Insufficient supply of compressed air	• Check compressed air supply
	• Material feed pump or high pressure hose are blocked (e.g., 2C material hardened)	• Dismantle the paint pump and clean, replace high pressure hose
	• Sometimes, the pump stops at a switch point	• Press the starter on the reverse valve and restart the pump
		• Clean the slide on the reverse valve carefully and if necessary lubricate with a light layer of oil
Irregular operation of material feed pump: spray jet collapses (pulsation)	• Viscosity too high	• Thin spraying material
	• Valves are clogged	• Clean material pump, if necessary leave to soak in solvent
	• Foreign body in suction valve	• Dismantle suction valve housing, clean and check valve seat
	• Diameter of the compressed air line too small	• Assemble a larger incoming line -> Technical data, paragraph 4.3.2
	• Valves, packings or pistons worn out	• Replace parts
	• Filter for control air or filter for work air is clogged	• Check filter and clean it
	• Suction filter clogged	• Clean filter
	• Ball in suction or piston valve is sticking	• Clean with solvent (if necessary vent device)
The pump runs when the discharge duct is closed	• Packings, valves, pistons worn	• Replace parts
Air motor iced up	• A lot of condensation water in the air supply	• Install a water separator

If none of the causes of malfunction mentioned is present, consult your WAGNER Service Center.

6.2 MAINTENANCE

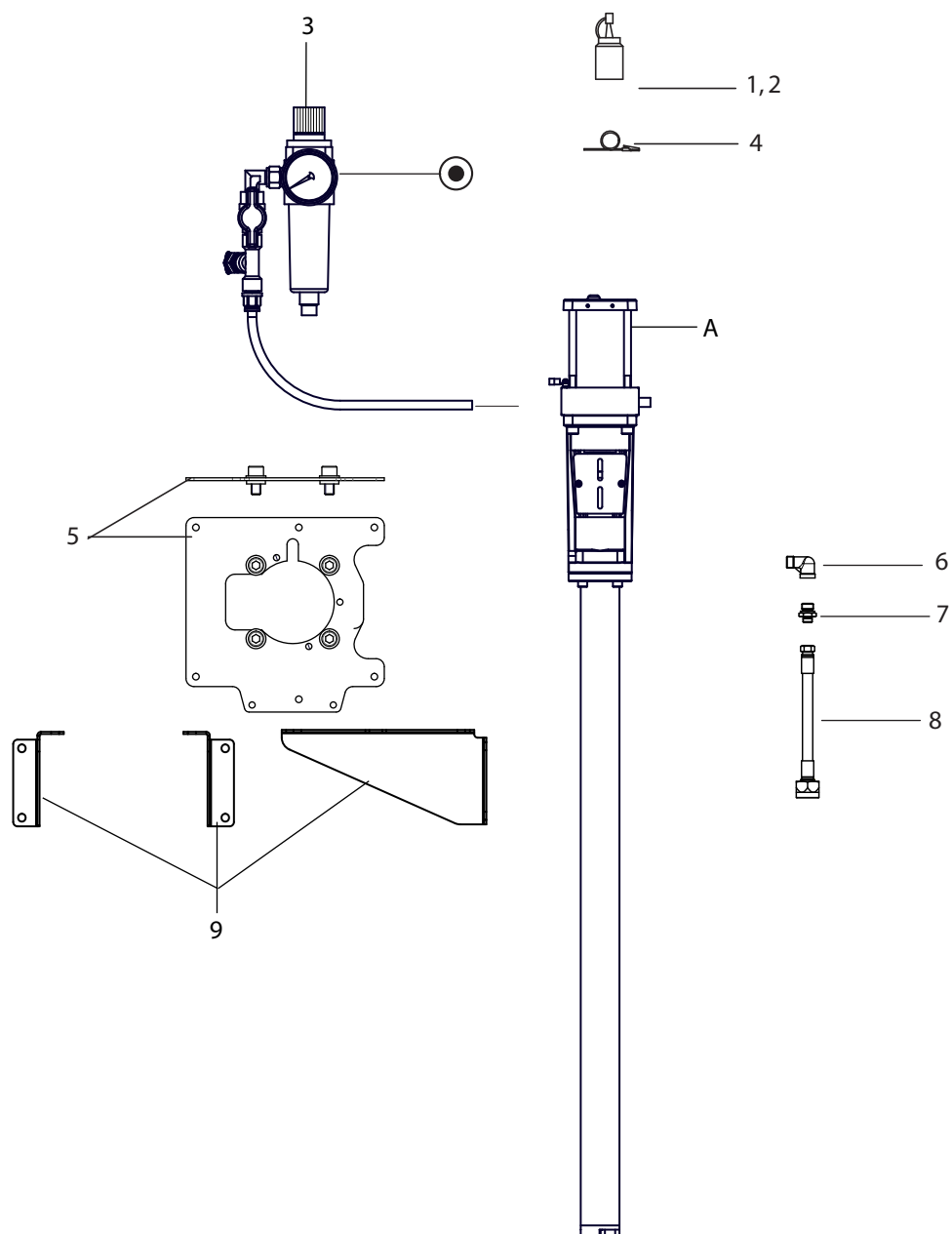
	 WARNING
	Incorrect maintenance/repair! Risk of injury and damage to the equipment → Repairs and part replacement may only be carried out by specially trained staff or a WAGNER service center. → Before all work on the unit and in the event of work interruptions: - Switch off the energy/compressed air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

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1. Check the level of separating fluid in the separating fluid cup every day, and top up if necessary.
2. Check and clean the high pressure filter every day or as required (if available).
3. Every shut down should be carried out as laid down in paragraph 5.3.3!
4. Check and replace if necessary hoses, tubes, couplings every days.

WAGNER recommends to check the whole spray system every year from a technical expert (e.g. WAGNER service technician).

7 ACCESSORIES



B_03603

List accessories EvoMotion		5-125
Item K	Description	No.
A	Piston pump	U1B05125D
1	Separating fluid 250 ml; 250 cc	9992504
2	Separating fluid 500 ml; 500 cc	9992505
4	Earthing cable 3 m; 9.8 ft	236219
5	Air regulator	T6140.00
6	Angle 90° G/R 1/2	2315783
7	Double nipple G3/8 Ax60° - G1/2A	392321
8	Extension for suction DN13 3.0 m; 9.8 ft M36/ G3	2315996
9	Wall mount EM31-40/Zip52 finish	T760.00M

8 SPARE PARTS

8.1 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 sub assembly.

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.

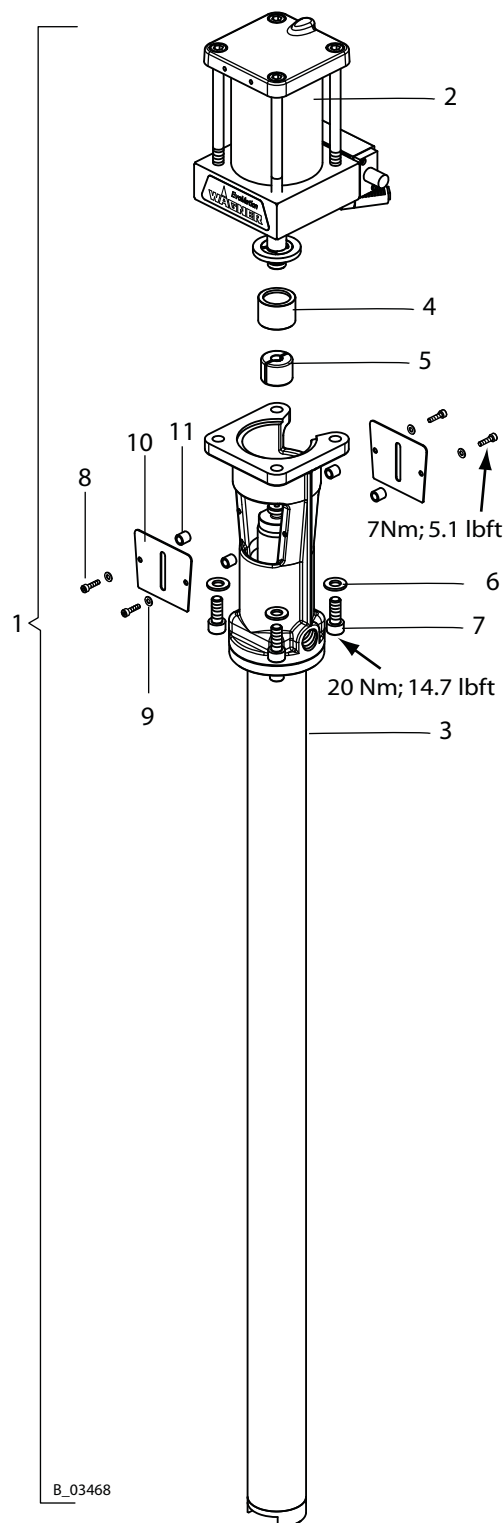
- ◆ = Wearing parts
Note: No liability is assumed for wearing parts
- = Not part of standard equipment, available, however, as additional extra.

	 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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8.2 OVER VIEWS MODULES

Item	Qty	Number	Description
1	1	U1B05125D	EvoMotion 5-125 PE/T
2	1	U3B08018060A	Air motor M80 EM C60
3	1	U2B125FC	Material pump 125 St PE/T
4	1	A112.62	Protection Connecting piece
5	1	A111.02	Connecting piece M/P
6	4	9920106	Washer
7	4	9900342	Cheese head screw with hexagon
8	4	9900308	Cheese head screw with hexagon
9	4	9920104	Washer
10	2	E051.62B	Protection Connecting piece
11	4	A532.62	Distance piece



B_03468

8.3 AIR MOTOR M80 EM C60

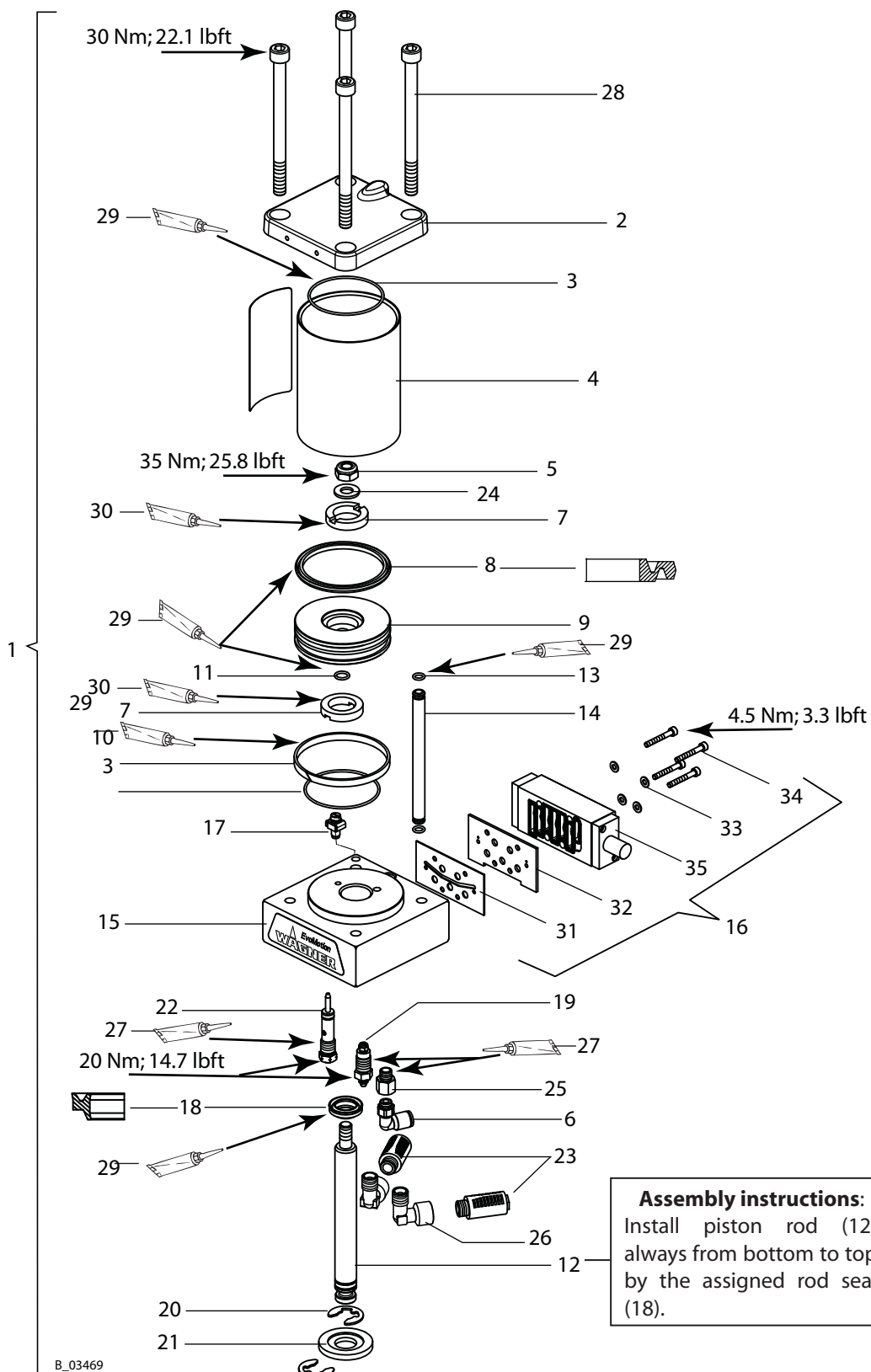
	 WARNING
	Incorrect maintenance/repair! Risk of injury and damage to the equipment → Repairs and part replacement may only be carried out by specially trained staff or a WAGNER service center. → Before all work on the unit and in the event of work interruptions: - Switch off the energy/compressed air 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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Spare parts list Air motor M80 EM C60				
Item	K	Qty	No.	Description
1		1	U3B08018060A	Air motor M80 EM C60
2		1	F132.91C	Motor flange above M80 EM
3	◆ ★	2	L108.06	O-ring
4		1	D608.81	Cylinder Motor
5		1	3055157	Hexagon nut with clamp
6		1	9992757	Screw in angle
7	◆ ★	2	G903.06	Absorber
8	◆ ★	1	L413.06	Seal DE 80
9		1	A164.01	Piston of motor
10	◆ ★	1	L802.08	Sliding ring
11	◆ ★	1	L110.06	O-ring
12		1	D404.12	Piston rod M80 EM
13	◆ ★	2	L109.06	O-ring
14		1	A408.12	Air tube M80 EM
15		1	T616.00C	Motor flange bottom assy. M80 EM
16	◆	1	P498.00KNE	Transfer valve ISO N/1
17		1	367258	Earthing assy.
18	◆ ★	1	L403.06	Rod seal
19	◆ ★	1	T703.00	Sensor above M80
20		1	K606.02	Lock washer for waves
21		1	A160.01A	Washer

◆ = Wearing part

★ = Included in service set



Spare parts list Air motor M80 EM C60				
Item	K	Qty	No.	Description
22	◆ ★	1	369290	Pilot valve
23	◆	2	H505.07	Sound absorber
24		1	9920106	Washer
25		1	M432.00	Reducing nipple
26		2	9992265	Angle screw-in connection
27		1	9992831	Loctite 542
28		4	9907241	Cheese head screw with hexagon
29		1	9998808	Grease Mobilux EP 2
30		1	9998157	Loctite 480
31	◆	1	G735.06AB	Valve seal
32		1	A818.71B	Valve plate
33		4	9920104	Washer
34		4	9900386	Cheese head screw with hexagon
35	◆	1	P498.00	Reversing valve P/1 SP/NUM (spare parts see chapter 8.3.1)
		1	T910.00	Service set Air motor EM 30-30/ 40-15/ 5-125

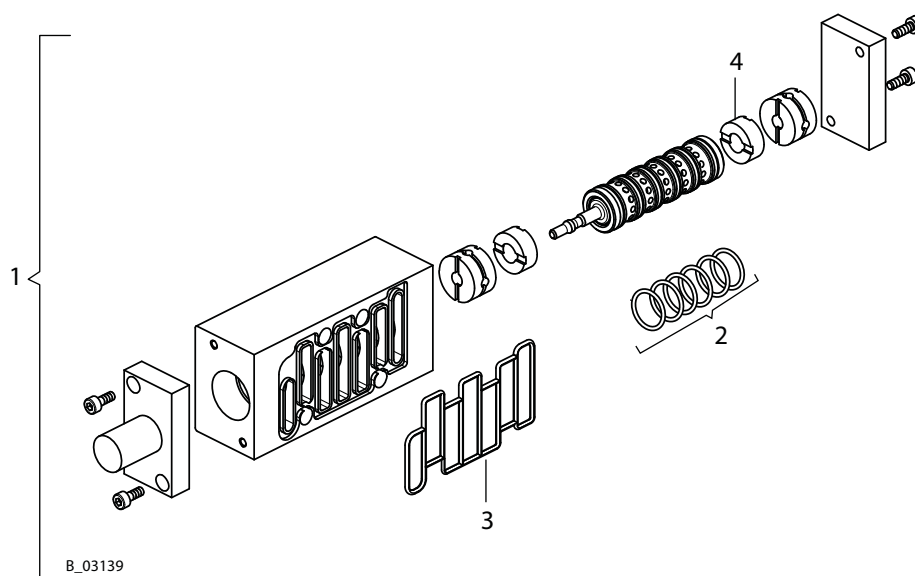
◆ = Wearing part

★ = Included in service set

8.3.1 TRANSFER VALVE

	 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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B_03139

Item	K	Qty	Description	No.
1		1	Transfer valve assy.	P498.00
2	◆	6	O-ring	9971123
3	◆	1	Valve seal	P521.00
4	◆	2	Absorber	P520.00

◆ = Spare parts

★ = Included in service set

8.4 MATERIAL PUMP 125

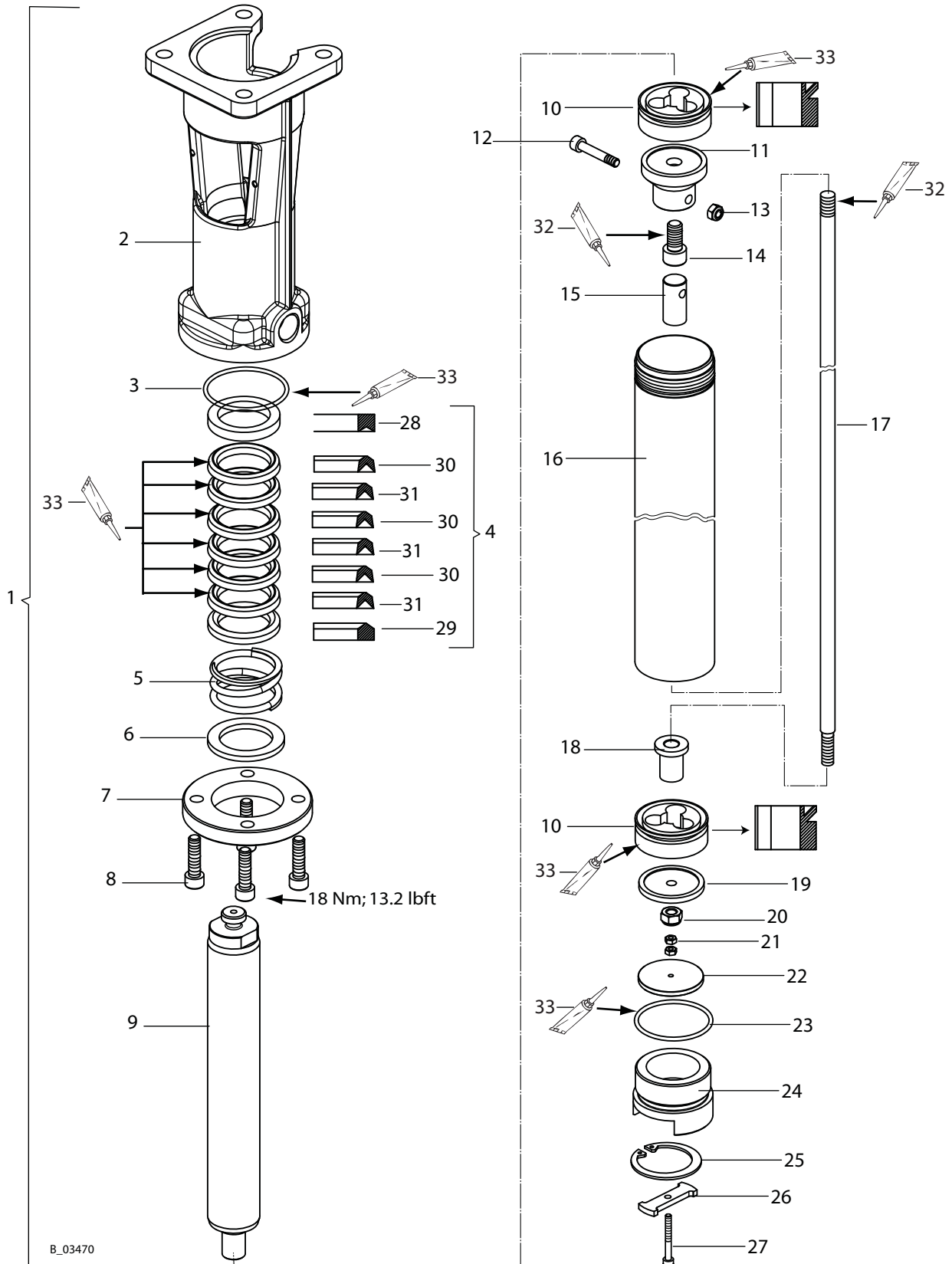
	 WARNING
	Incorrect maintenance/repair! Risk of injury and damage to the equipment → Repairs and part replacement may only be carried out by specially trained staff or a WAGNER service center. → Before all work on the unit and in the event of work interruptions: - Switch off the energy/compressed air 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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Spare parts list Material pump 125				
Item	K	Qty	Number	Description
1			U2B125FC	Material pump 125 St PE/T
2		1	F142.21	Distance piece MP
3	◆★	1	L136.06	O-ring
4	◆★	1	T971.00E	Packing PE/T 36/50
5		1	H212.03	Spring upper
6		1	A645.01	Washer
7		1	A644.12	Cylinder flange
8		4	9907079	Cheese head screw with hexagon
9	◆	1	D114.42A	Pump rod D36
10	◆★	2	G609.08	Seal
11		1	A646.03	Valve piston
12		1	B0344.03	Special screw M6x35
13		1	K311.03A	Self-locking hexagon nut
14		1	K108.03	Cheese head screw with hexagon
15		1	A827.03	Rod coupling
16	◆	1	D710.22	Cylinder Pump
17		1	A647.03	Rod Pump
18		1	A648.03	Socket Rod
19		1	A649.03	Valve piston
20		1	9913031	Self-locking hexagon nut
21		2	K317.03	Hexagon nut

◆ = Wearing part

★ = Included in service set



B_03470

Spare parts list Material pump 125				
Item	K	Qty	Number	Description
22	◆	1	A179.03	Valve foot
23	◆★	1	L137.06	O-ring
24	◆	1	A650.03	Inlet housing
25		1	K604.22	Securing ring
26		1	A651.03	Valve stop
27		1	K158.03	Cheese head screw with hexagon
28	◆★	1	A253.01	Support ring
29	◆★	1	A250.01	Support ring
30	◆★	3	G121.05	Collar T 36/50
31	◆★	3	G121.08E	Collar PE 36/50
32		1	9992831	Loctite 542
33		1	9998808	Grease Mobilux EP2
		1	T958.00AE	Service set EvoMotion material pump 125 cm³

◆ = Wearing part

★ = Included in service set

OPERATING MANUAL

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WAGNER



Order number 2316596

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