WAGNER

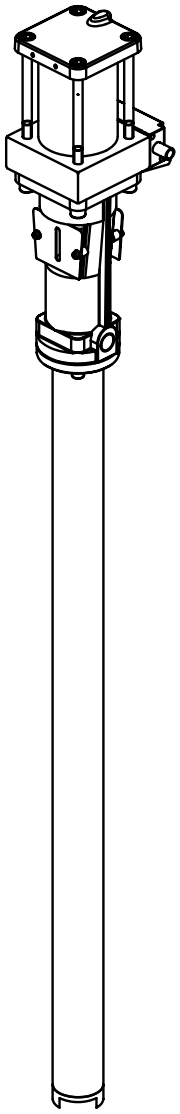
Translation of the original Operating Manual

EvoMotion
5 - 125

Editon 10 / 2007

Piston pump

Volume 125 cc



CE

Ex II 2G IIB T3

Contents

Contents

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

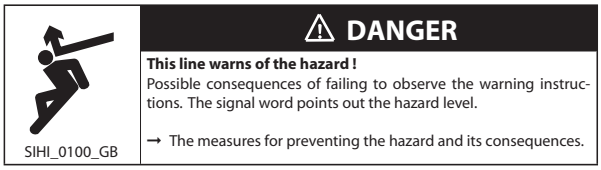
This operating manual is available in the following languages:

Language:	Part No.	Language:	Part No.
German	ZZB005GER	English	ZZB005ENG
French	ZZB005FRE	Dutch	--
Italian	ZZB005ITA	Spanish	ZZB005SPA
Danish	--	Swedish	--
Portuguese	--	Turkish	--

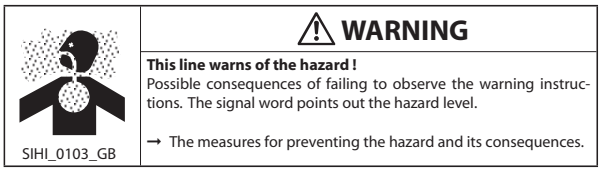
1.2 WARNINGS, NOTES AND SYMBOLS IN THESE INSTRUCTIONS

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:

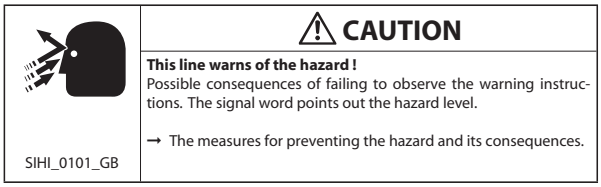
Danger - imminent danger. Non-observance will result in death, serious injury and serious material damage



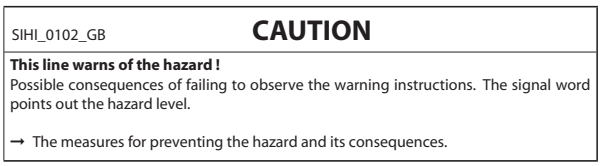
Warning - possible danger. Non-observance can result in death, serious injury and serious material damage.



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



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



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.

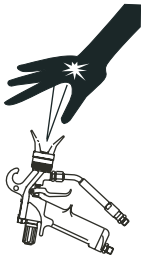
2.1.3 A SAFE WORK ENVIRONMENT

→ 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 chap. „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 earthed for every spraying operation.
- → Earth the workpieces 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 CONTATTO SUPERFICI AD ALTA TEMPERATURA

→ 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 Ex II 2G IIB T3

CE: Communautés Européennes
Ex: Symbol for explosion protection
II: Unit class II
2: Category 2 (Zone 1)
G: Ex-atmosphere gas
IIB: Explosion class
T3: Temperature class: maximum surface temperature < 200°C; 392°F.

2.4.3 MAX. SURFACE TEMPERATURE

Max. surface temperature:	same as the permissible material temperature
Permissible ambient temperature:	see under Technical data, Section 4.3.2

2.4.4 SAFETY REGULATIONS

Safe handling of WAGNER spray units

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 agent container is filled with sufficient separating agent.

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.

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.

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 PRODUCT LIABILITY AND WARRANTY

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 WARRANTY

This unit is covered by our warranty on the following terms:
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 terms of the warranty are met at our discretion by the repair or replacement of the unit or parts thereof. 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.

This warranty does not cover damage caused by:
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, electrochemical or electrical agents, except when the damage is attributable to us.

Abrasive coating products such as redlead, emulsions, glazes, liquid abrasives, zinc dust paints and similar reduce the service life of valves, packings, spray guns, nozzles, cylinders, pistons etc. Any wear resulting from the aforementioned causes is not covered by this warranty.

Components not manufactured by Wagner are subject to the warranty terms of the original maker.
The replacement of a part does not extend the warranty period of the unit.
The unit should be inspected immediately upon receipt.

To avoid loss warranty, aniy apparent defect should be notified to us or the dealer in writing within 14 days from date of sale of the unit.

The right to commission warranty services to a third party is reserved.
Warranty claims are subject to proof of purchase by submitting an invoice or delivery note.
If an inspection finds damage not covered by the present warranty, the repair will be carried out at the expense of the purchaser.

Note that this warranty does not in any way restrict legally entitled claims or those contractually agreed to in our general terms and conditions.

J. Wagner AG

3.3 CE-CONFORMITY

Herewith we declare that the supplied version of:
Pneumatic pumps with article no.

Mod. 5-125
U1B05125D

Complies with the following provisons applying to it:

98/37/CE	94/9/CE Atex	

Applied standards, in particular:

UNI EN 292-1	UNI EN 809	UNI EN 1127-1
UNI EN 292-2	UNI EN 1050	EN 12621
UNI EN 563	UNI EN ISO 3746	UNI EN ISO 13463

Marking:

CE Ex II 2G IIB T3

EC 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:

ZDI.16

4 DESCRIPTION

4.1 FIELD OF APPLICATION

4.1.1 USING IN ACCORDANCE WITH THE INSTRUCTIONS

The pneumatic piston pump is suitable for transfer/process liquid materials.

CAUTION

Abrasive fluids and pigments !
Greater wear of the parts carrying the material.

→ Use suitable pump model (delivery per cycle, material, valves, etc.) see chapter 4.3.2.

→ Verify that fluids and solvents used are compatible with the constrution material of the pump as described in chapter 4.3.1.

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4.2 EXTENT OF DELIVERY

Pneumatic piston pump
consisting of:

- Fluid section
- Air motor
- Connection elements

Separating fluid 250 ccm	Part No. : 9992504
CE-conformity see	Chapter 3
Operating manual in english	Part No. : ZZB005ENG
Operating manual for the other language see	Chapter 1

The delivery note shows the exact scope of delivery.
Accessories: see chapter 7.

4.3 DATA

4.3.1 MATERIALS OF THE PARTS TRANSPORTING PAINT

Pump body	Carbon steel
Piston	Carbon steel silicon carbide coated
Valves balls	Stainless steel
Valves seats	Stainless steel
O-rings	EPDM
Seal packings	PE/ TF

PE = Polyethylen UHMW
TF = (PTFE)

4.3.2 TECHNICAL DATA

Description	Unit	5-125
Transmission ratio		5 :1
Flow volume per double stroke (DS)	cm^3 cc	125
Max. operating pressure	MPa bar psi	4.0 40 580
Max. possible strokes in operation	DH/min DS/min	60
Min. - Max. air inlet pressure	MPa bar psi	0.2-0.8 2-8 28-116
Ø air inlet connection (female)	mm Inch	8 0.314
Min. Ø compressed air hose	mm Inch	9,0 0.354
Air consumption (at 0.6 MPa; 6 bar; 87 psi) per DS	nl scf	4,0 0,14
Sound pressure level at max. 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; 58.01 psi air pressure*	dB(A)	62
Ø piston of air motor	mm Inch	80 3.15
Material inlet connection (female)	Inch	-
Material outlet connection (female)	Inch	G 1/2“
Weight	kg lb	25 55.0
Max. material pressure at pump inlet	MPa bar psi	2 20 90
Range of material temperature	°C F	+5° ÷ +80° (+41 ÷ +176)
Range of the ambient temperature	°C F	+5° ÷ +60° (+41 ÷ +140)
Allowable sloping position at work	◁ °	± 10

* A rated sound pressure level measured at 1m distance according to UNI EN ISO 3746-1997.

⚠ 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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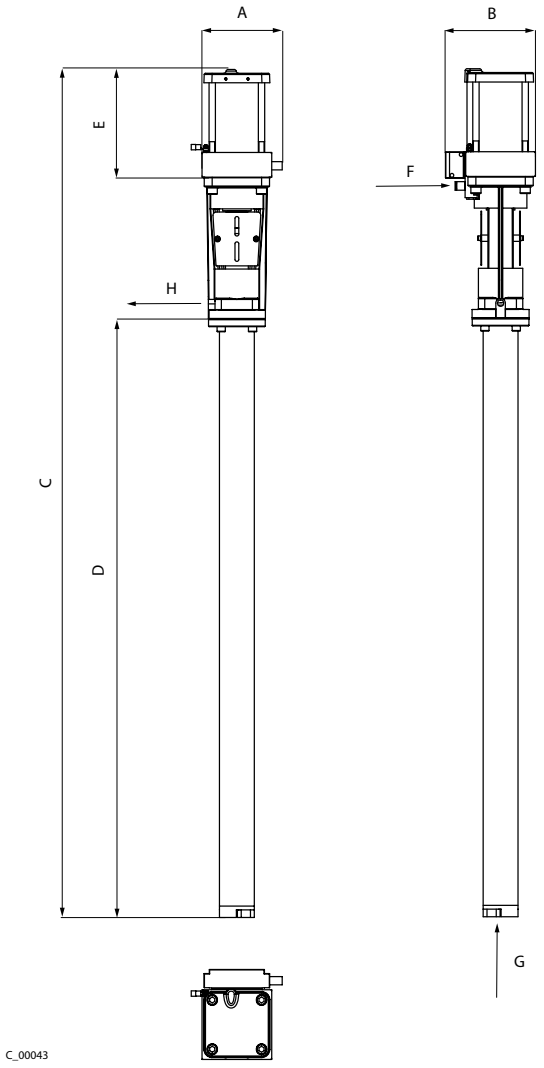
4.3.3 DIMENSIONS AND CONNECTIONS

	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

Esemple

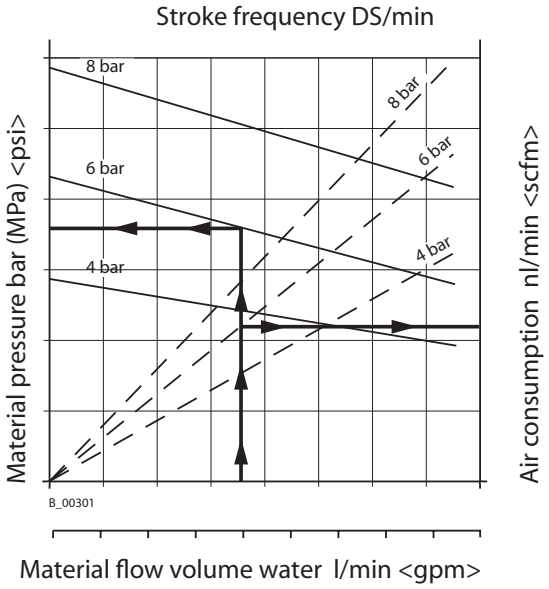
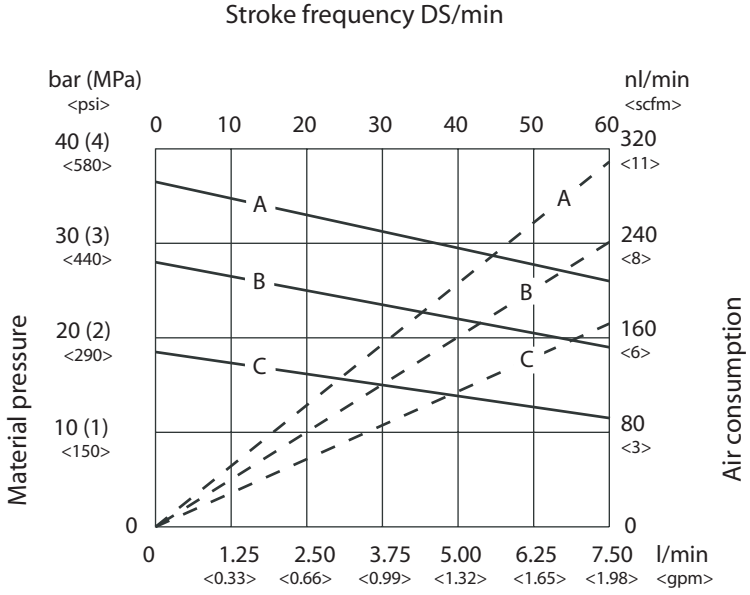


Diagram EvoMotion 5 - 125



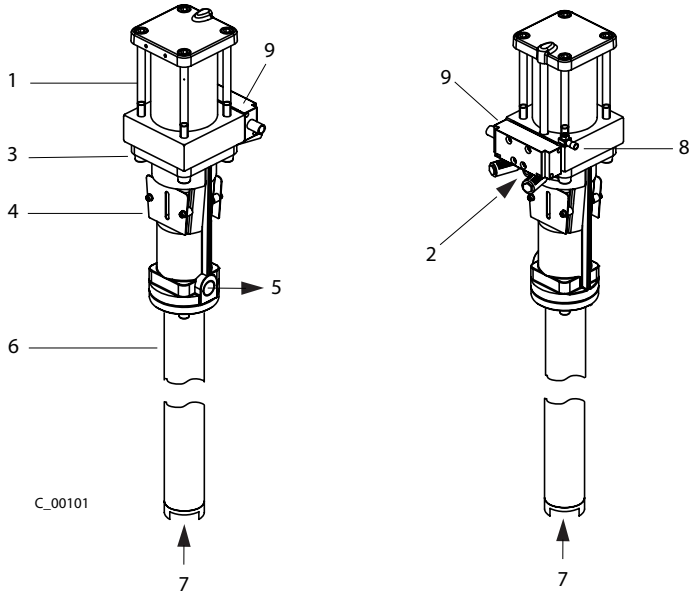
A = 8 bar; 0.8 MPa; 116 psi air pressure
B = 6 bar; 0.6 MPa; 87 psi air pressure
C = 4 bar; 0.4 MPa; 58 psi air pressure

Material flow volume water

4.4 FUNCTIONING

4.4.1 PUMP

1 Air motor
2 Air Inlet
3 Mounting flange
4 Separating fluid cup
5 Material outlet
6 Fluid section
7 Material inlet
8 Earthing connection
9 Reversing valve



General information
The piston pump is driven with compressed air. This compressed air moves up and down the air piston in the air motor (1) and thus also the pump piston in the material pump (6). After each stroke, the flow of compressed air is reversed through the reversing valve (9). Working materials are sucked in on the upward stroke and simultaneously conveyed to the outlet port in both strokes.

Air motor (1)
The pneumatic motor must be powered at a pressure not exceeding the value given on the plate. Each component linked to the pump outlet must have an operating pressure equal to or higher than the pressure generated by the pump itself. This final pressure is given on the plate.
The versions with air supply unit (option) are equipped with a safety valve with the aim to limit the max. pressure of compressed air into the pump motor.

⚠WARNING

Overpressure!
Risk of injury from bursting components.

→ Never change the safety valve setting.

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Fluid section (6)
The fluid section has been designed as a piston pump with exchangeable ball valves. The pump piston runs in two packings which are self-adjusting by means of a pressure spring, thus resulting in a long life-span.
Between the air motor and fluid section there is a separating fluid cup (4) for holding the separating fluid.

4.4.2 PRESSURE REGULATOR (OPTION)

1 Pressure regulator
2 Ball valve
3 Control air gauge
4 Compressed air connection
5 Motor safety and depressurization valve

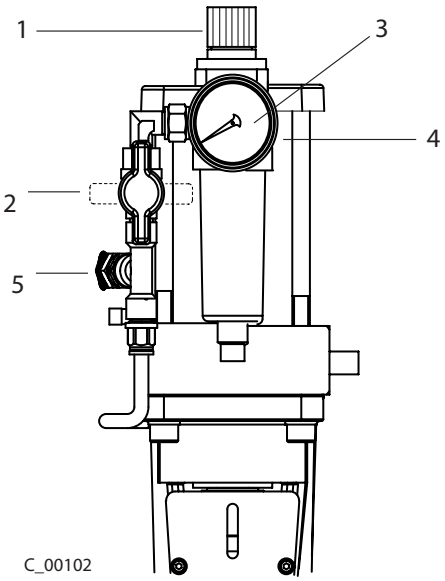
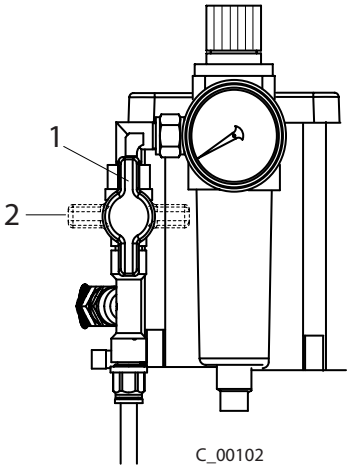


Figure: Pump 5 - 125

Settings ball valve:

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



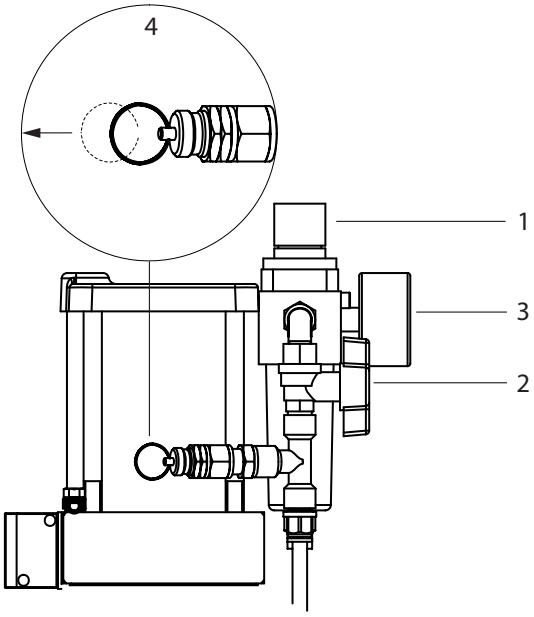
4.4.2.1 MOTOR SAFETY AND DEPRESSURIZATION VALVE

Safety valve (4)
Besides having the aim to limit the max. inlet pressure of compressed air into the pump motor, the safety valve (4) also serves as a depressurizing valve for the motor. To depressurize the motor, just pull the dedicated exhaust ring with closed ballcock (2).

The ring on the safety valve also allows to check the good performance of the valve itself.

Use the safety valve ring to depressurize the pneumatic motor, in addition to the pressure outlet procedure on the liquid.

Depressurize the pneumatic motor before any disassembly or maintenance work.



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⚠WARNING

Overpressure!
Risk of injury from bursting components.

→ Frequently check the safety valve efficiency by pulling the ring.

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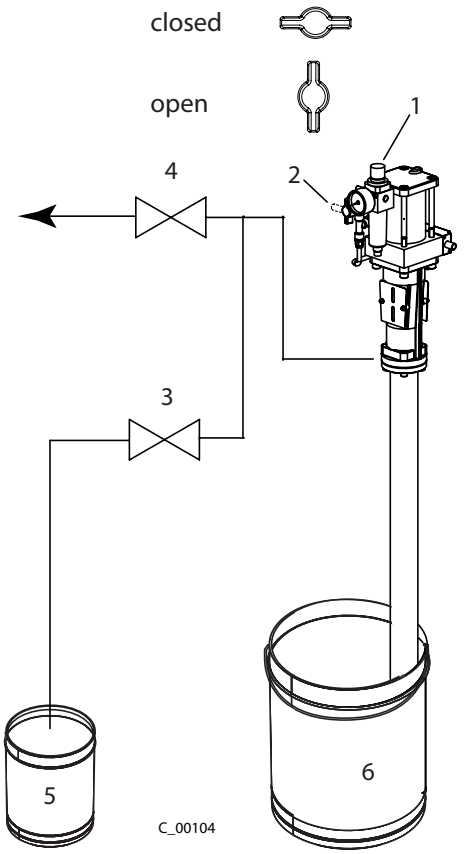
5 STARTING UP AND OPERATION

5.1 INSTALLATION AND CONNECTION

Procedure:

1. Dip the pump into the material's container (6).
2. Mount an air supply unit (1-2) (available as option)
3. Mount a recycling valve with a suitable return hose (3).
4. Mount a suitable cut-off valve (4) on the material's delivery line.



	⚠ WARNING
	Inclined surface! Risk of accidents if the unit rolls away/falls.

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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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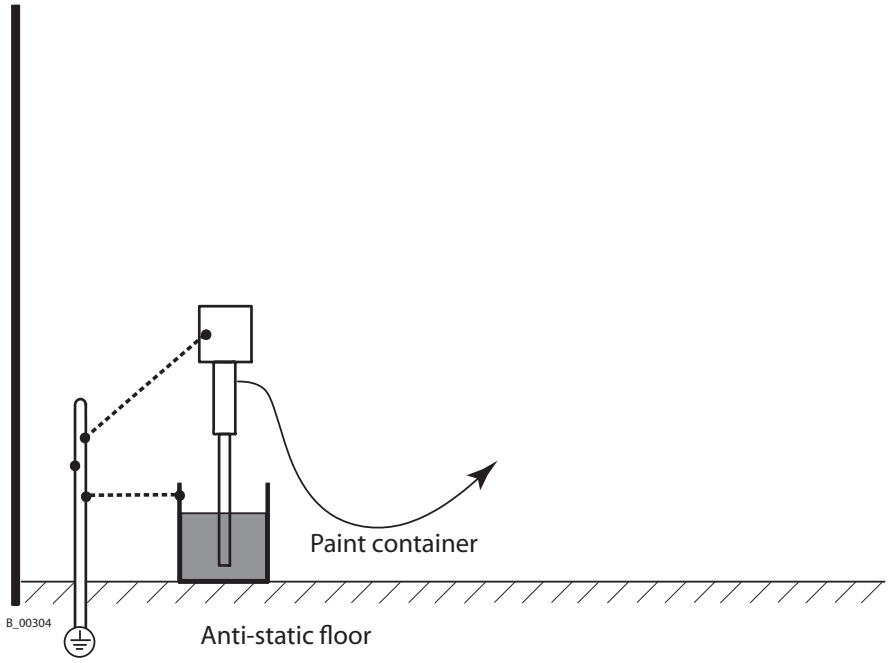
Earthing schema (example)

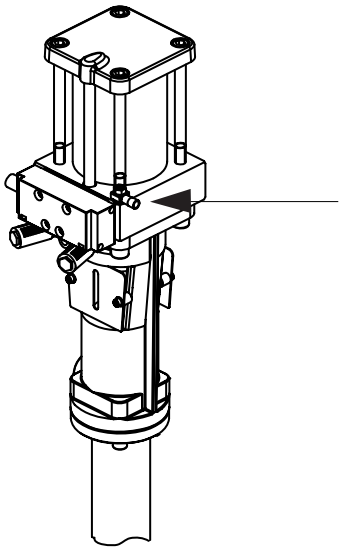


Cable cross sections

Pump	4 mm²; AWG 11
Paint container	6 mm²; AWG 10
Conveyor	16 mm²; AWG 5
Spraying booth	16 mm²; AWG 5
Spraying stand	16 mm²; AWG 5

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.



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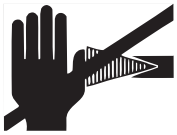
5.2 START UP

5.2.1 SAFETY REGULATIONS

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 Chap. 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 piston 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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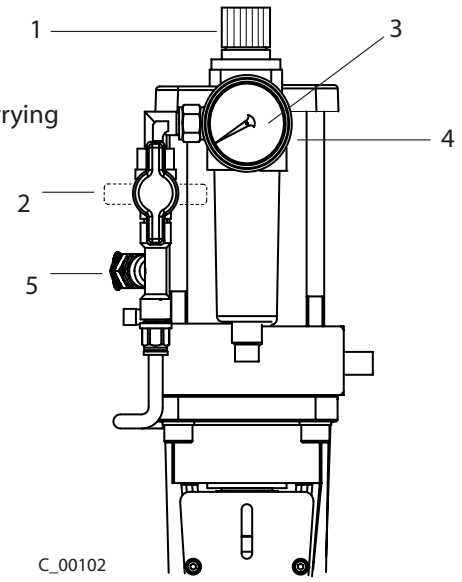
Before every start-up, the following points should be observed as laid down in the operating manual:
- Check the permissible pressures
- Check all connections for leaks
- Check hose for damage

It should be ensured that the unit is in the following state before carrying out any work on it:
- The pressure should be released from the pump
- The air supply should be interrupted



Emergency stop
In the case of unforeseen occurrences close immediately the ball valve (2) and release the residual pressure in the pump.

5.2.2 FILLING 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 in under the pot edge.

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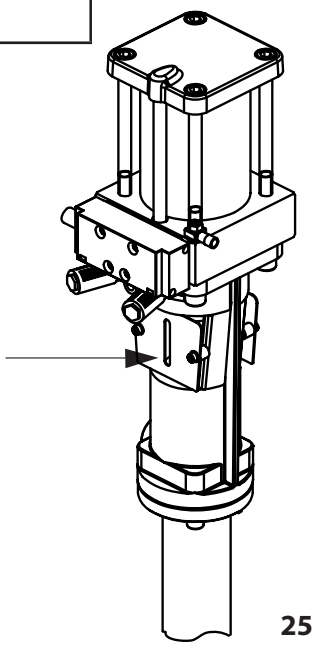


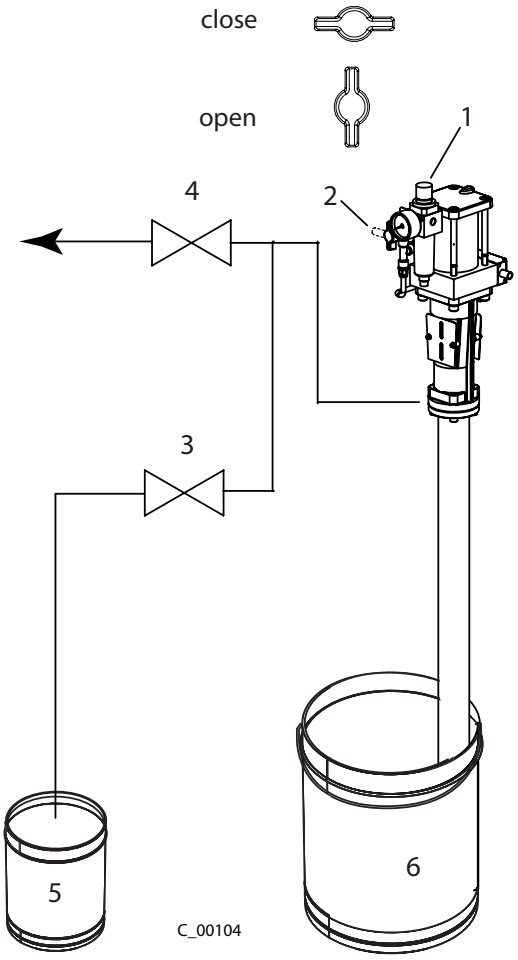
Pour the supplied release agent into the slot dedicated to house it.

Filling level : 1 cm; 0.4 inch under the pot edge
Separating fluid: see accessories table

Note
When preparation has taken place the max. allowed leaning angle of the pumpe is ± 30° for moving, transport, etc.
During operation the pump must be in vertical position.

5.2.3 BASIC WASHING

1. Dip the pump into the detergent's container (6).
2. Place an empty container (5) at the end of the return hose (3).
3. Open the return valve (3).
4. Slowly open the ball valve (2) (option)
5. Adjust the pressure regulator (1) (option) until the pump starts working.
6. Continue washing the system until the container (5) fills with clean detergent.
7. Close the ball valve (2).
8. Close the return valve (3).
9. Open the valve (4), then slowly open the ball valve (2) in order to wash the delivery line.
10. Wash the system until clean detergent comes out from the outlet.
11. Close the delivery line.



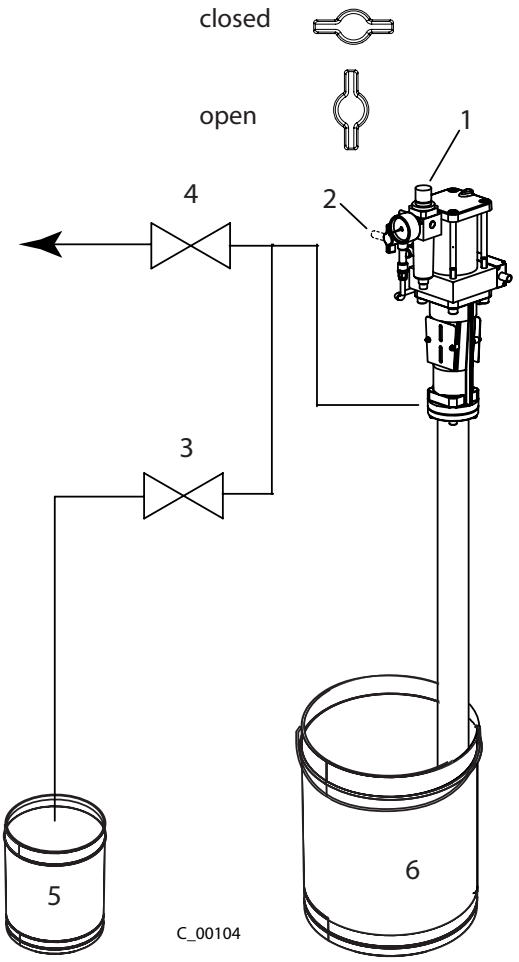
5.2.4 FILLING WITH WORKING MATERIAL

1. Place the empty container (5) under the return valve (3).
2. Dip the pump into the material's container (6).
3. Slowly open the ball valve (2).
4. Open the return valve (3).
5. Adjust the pressure regulator (1) until the pump starts working.
6. Acting on the pressure regulator (1), adjust the air pressure so that the purmp can cycle regularly.
7. As soon as the return hose (3) starts delivering pure material, close the ball valve (2).
8. Close the return valve (3).
9. Open the valve (4), then slowly open the ball valve (2) in order to fill the delivery line.
10. When pure material is delivered without air bubbles, close the ball valve (2) and depressurize the motor either by opening the valve (3) or acting on the safety valve on the air supply unit (1) (option).
11. When the system is depressurized, close the delivery valve (4).
12. Dispose of the container (5) content in compliance with the local regulations.

5.3 WORK

5.3.1 FUNCTIONING

1. Close the return valve (3)
2. Slowly open the ball valve (2).
3. Open the valve (4)
4. By acting on the pressure regulator (1), set the desired working pressure.
5. Open and close the valve (4) and/or the cut-off devices on the delivery line to start and stop the material's flow.



5.3.2 WORK STOP

1. Close the valve (4) and/or the cut-off devices on the delivery line.
2. Close ball valve (2).
3. Depressurize the system by opening the return valve (3).

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. Working breaks -> procedure on chapter 5.3.2.
2. Basic cleaning -> procedure on chapter 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 -> Paragraph 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 piston 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 STORING FOR LONGER PERIODS OF TIME

When storing the device for longer periods of time it is necessary to thoroughly clean it and protect it from corrosion. Replace 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. Cleaning with preserving agent acc. 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 FAULT LOCATION, MAINTENANCE AND REPAIR

6.1 TROUBLE SHOOTING AND SOLUTION

Problem	Cause	Solution
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 (pressure regulator defect)	• Disconnect compressed air supply 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., two-component material hardened)	• Dismantle the paint pump and clean, replace high-pressure hose
	• Every now and again the pump stops on one of the commutation points.	• Clean and lubricate the reversing valve sliding spool.
Irregular operation of material feed pump: spray jet collapses (pulsation)	• Viscosity to high	• Dilute working material
	• Valve stuck	• 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)
Pump operates even when delivery line is closed	Packings, valves or pistons worn	Replace parts
Air motor iced up	A lot of condensation water in the air supply.	Install a water separator.

If the problem is not listed above consult your WAGNER Service Center.

6.2 MAINTENANCE

⚠WARNING

Incorrect maintenance/repair!
Danger to life and equipment damage.

→ Only a WAGNER service center or a suitably trained person may carry out repairs and replace parts.
→ Only repair and replace parts that are listed in the chapter "Spare parts catalog".
→ Before all work on the unit and in the event of work interruptions:
- Disconnect the control unit from the mains.
- 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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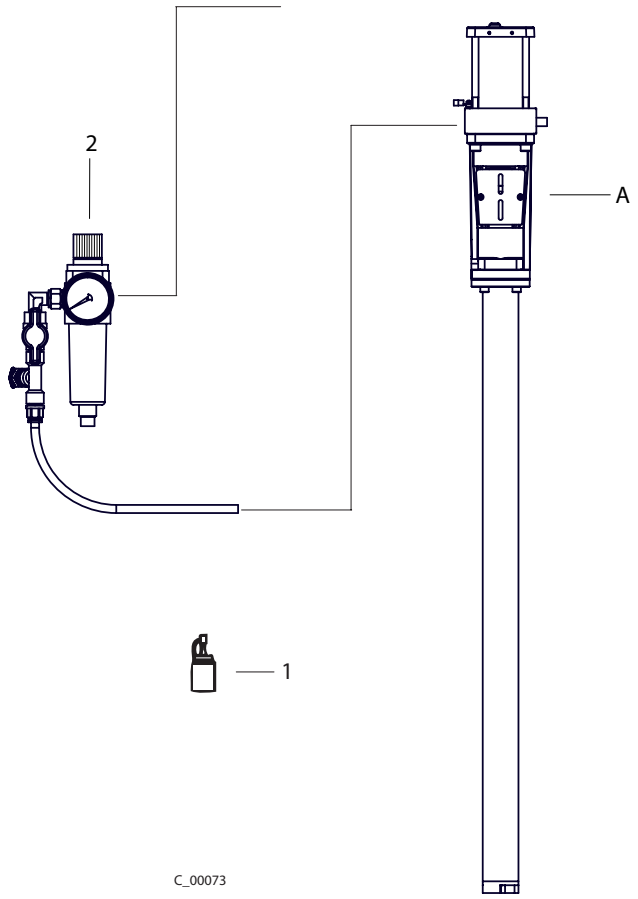
1. Check the level of separating fluid in the separating fluid cup every day, and top up if necessary.
2. Check and clean the high-pressure filter every day or as required (if included).
3. Every shut down should be carried out as laid down in paragraph 5.3.3 !
4. Check and replace if necessary hoses, 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



	List accessories EvoMotion	5-125
Pos K	**Description**	**No.**
A	Piston pump	U1B31040P
1	Release agent 250ml; 250cc	9992504
1	Release agent 500ml; 500cc	9992505
2	Air regulator	T6140.00

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 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.

⚠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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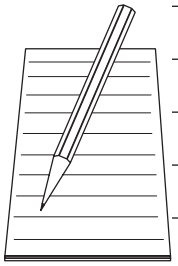
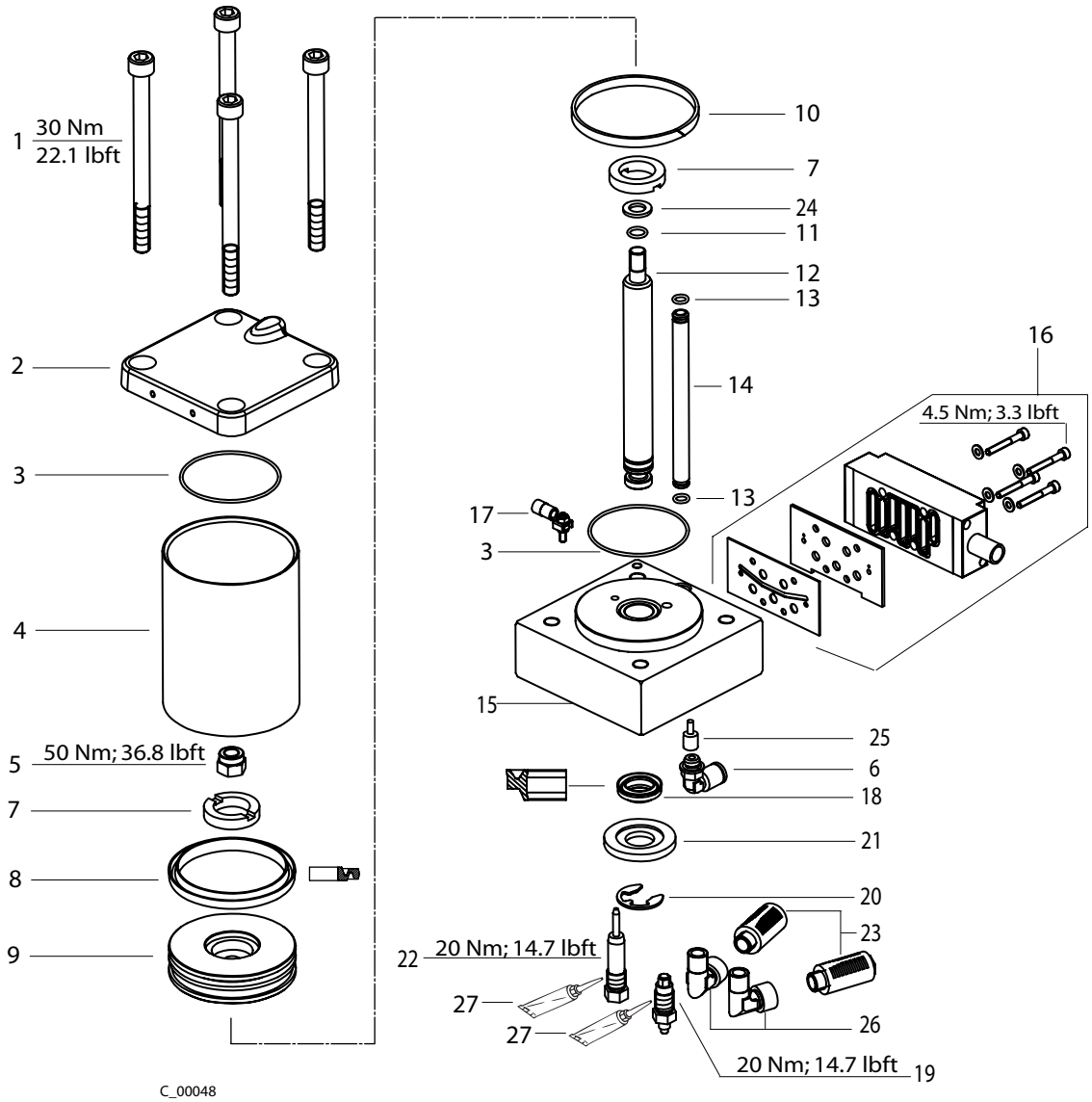


8.2 AIR MOTOR

8.2.1 AIR MOTOR EXPLODED VIEW 5 - 125



⚠WARNING

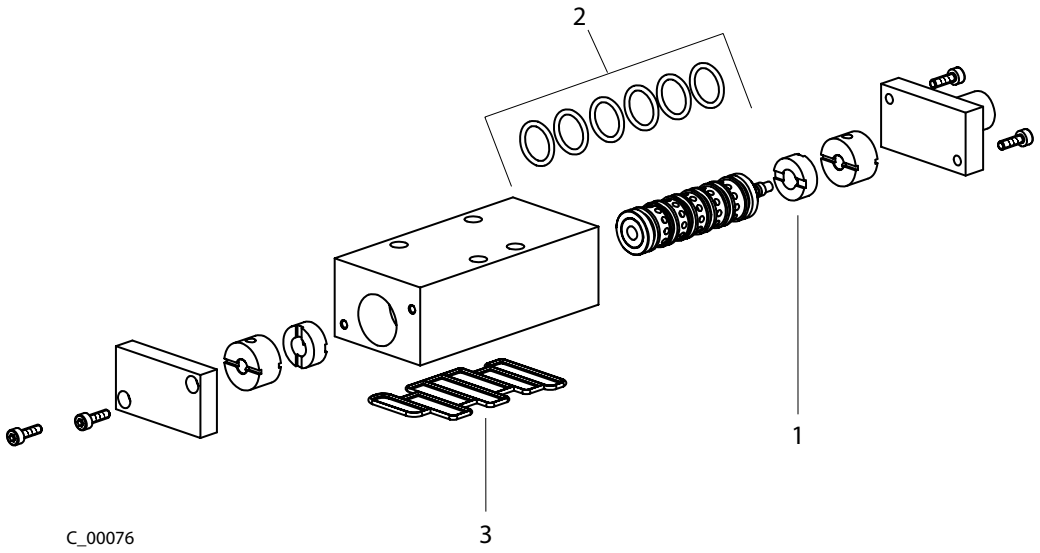
Incorrect maintenance/repair!
Risk of injury and damage to the equipment.

→ 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.

Spare parts list Air motor 5 -125			**5 - 125**
Pos K	**Description**	**Qty.**	**No.**
	Air motor		U3B08018060A
1	Socket screw	4	K1033.62
2	Upper motor flange	1	F132.91C
3 ★ ◆	O-Ring seal	2	L108.06
4	Motor cylinder	1	D608.81
5	Self-locking nut	1	K309.62
6	Swivel fitting	1	M339.00
7 ★ ◆	Damper	2	G903.06
8 ★ ◆	Piston seal gasket	1	L413.06
9	Motor piston	1	A164.01
10 ★ ◆	Slip band	1	L802.08
11 ★ ◆	O-Ring seal	1	L110.06
12	Motor rod	1	D404.12
13 ★ ◆	O-Ring seal	2	L109.06
14	Air pipe	1	A408.12
15	Motor base	1	T616.00C
16 ◆	Reversing valve	1	P498.00KNE
17	Earthing kit	1	T6153.00
18 ★ ◆	Seal gasket	1	L403.06
19 ★ ◆	Lower feeler	1	T703.00
20	Retaining ring	1	K606.02
21	Reversing disc	1	A160.01A
22 ★ ◆	Upper feeler	1	T702.00
23 ◆	Muffler	2	H505.07
24	Washer	1	K507.62
25	1/8 MF Straight fitting	1	M432.00
26	1/4 MF L-shaped fitting	2	M213.04
27	Loctite 542	-	-
	Service set	1	T910.00

◆ = Wearing parts ★ = Included in service set

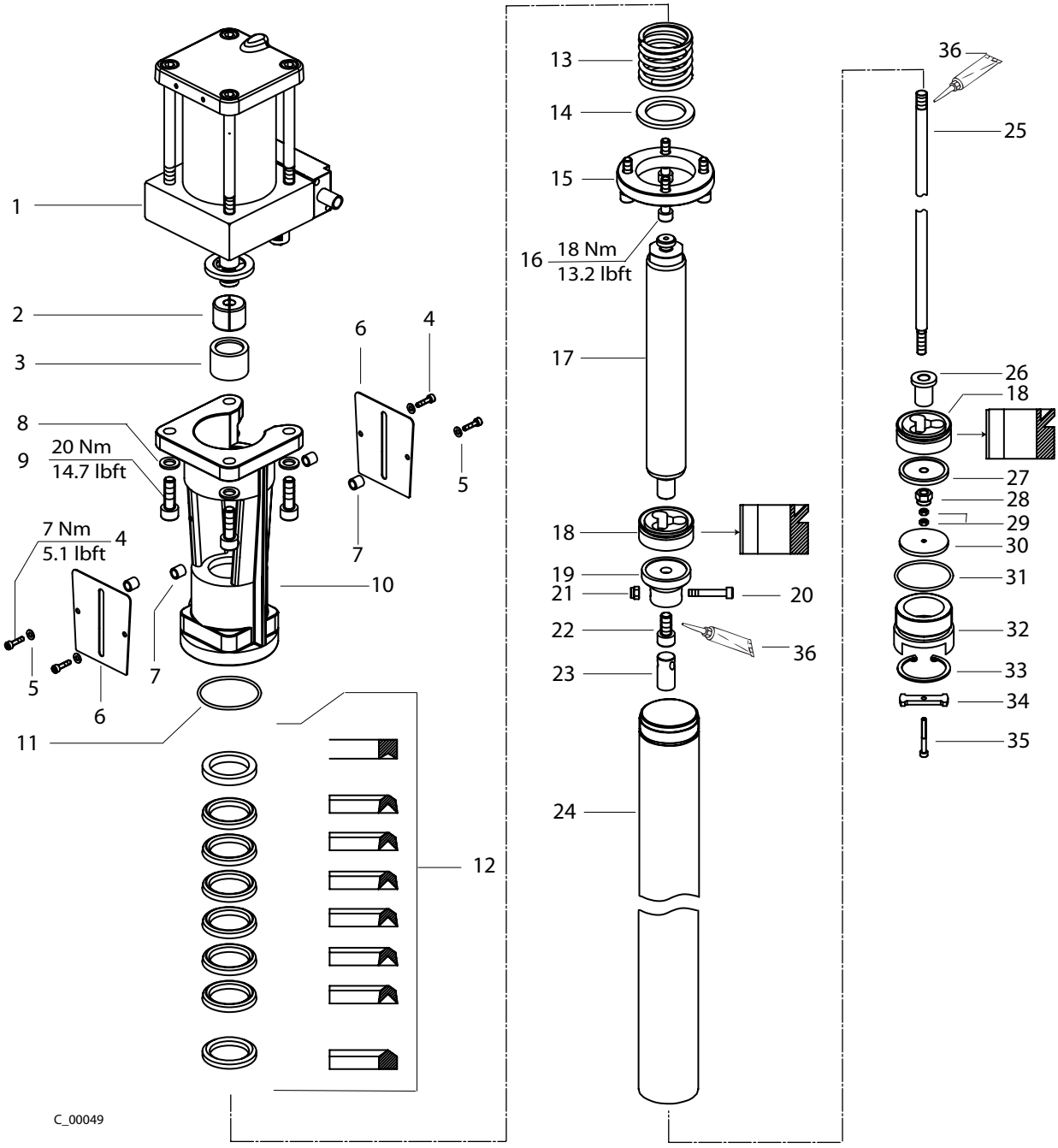
8.2.2 REVERSING VALVE 5 - 125



Spare parts list Reversing valve 5 - 125			5 - 125
Pos K	**Qty.**	**Description**	**No.**
		Reversing valve	P498.00
1	1	Damper	P520.00
2	6	O-Ring seal	L115.06
3	1	Valve base seal gasket	P521.00

8.3 FLUID SECTION 5 - 125

8.3.1 FLUID SECTION EXPLODED VIEW 5 - 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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Sare parts list Fluid section 5 - 125			**5-125**	
Pos	**K**	**Description**	**Qty.**	**No.**
		Fluid section		U1B05125D
1		Motor	1	U3B08018060
2		M/P connector	1	A111.02
3		Connector sleeve	1	A112.62
4		Socket screw	4	K198.62
5		Washer	4	K501.62
6		Connector sleeve	1	E051.62A
7		Spacer 7x10	4	A532.62
8		Washer	4	K507.62
9		Socket screw	4	K111.62
10		Spacer	1	F142.21
11	★ ◆	O-Ring seal	1	L136.06
12	★ ◆	Upper packing	1	T971.00E
13		Spring	1	H212.03
14		Spring washer	1	A645.01
15		Cylinder flange	1	A644.12
16		Socket screw	4	K137.62
17	◆	Pump rod	1	D114.42A

◆ = Wearing parts

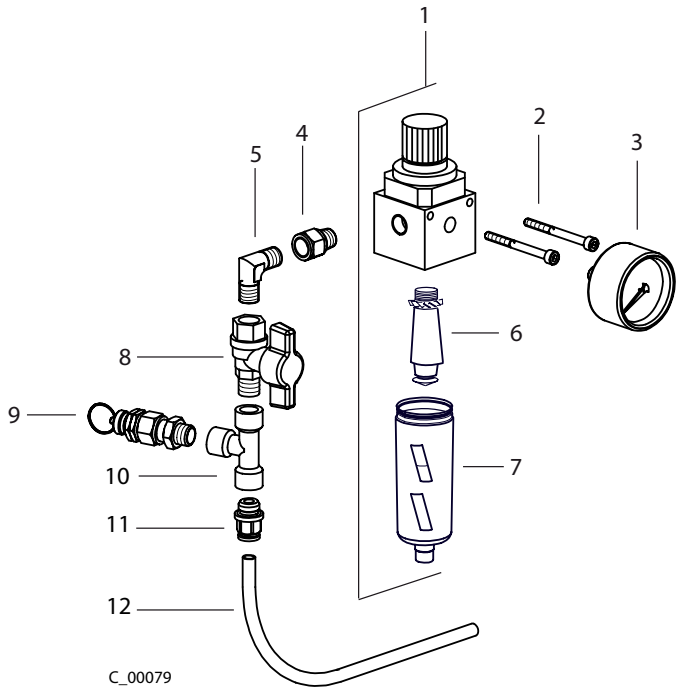
★ = Included in service set

Sare parts list Fluid section 5 - 125			5-125	
Pos	**K**	**Description**	**Qty.**	**No.**
18	★ ◆	Seal gasket	2	G609.08
19		Rod valve	1	A646.03
20		Special screw	1	B0344.03
21		Self-locking nut	1	K311.03A
22		Socket screw	1	K108.03
23		Rod connector	1	A827.03
24	◆	Pump cylinder	1	D710.22
25		Pump rod	1	A647.03
26		Rod bushing	1	A648.03
27		Rod valve	1	A649.03
28		Self-locking nut	1	K312.03
29		Nut	2	K317.03
30	◆	Foot valve	1	A179.03
31	★ ◆	O-Ring seal	1	L137.06
32	◆	Pump foot	1	A650.03
33		Locking ring	1	K604.22
34		Valve stopper	1	A651.03
35		Socket screw	1	K158.03
36		Loctite 542	-	-
		Service set	1	T958.00AE

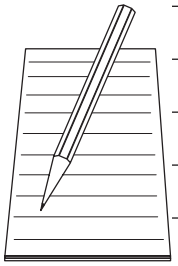
◆ = Wearing parts

★ = Included in service set

8.4 AIR REGULATION UNIT KIT



Spare parts Air regulation unit			5 - 125
Pos.	**Qty.**	**Description**	**No.**
		Air regulation unit kit	T6140.00
1	1	Air filter regulator	P124.00M
2	2	Screw M4X50	K166.62
3	1	Pressure gauge	P903.00
4	1	MF fitting	M239.00
5	1	L-shaped fitting MM	M215.04
6	1	Filtering element	P247.00
7	1	Filter cup	P212.00A
8	1	Valve	M101.00
9	1	Safety valve	P484.00C0
10	1	Fitting T	M297.00
11	1	Fast fitting	M226.04
12	1	Motor connecting hose	S407.01



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