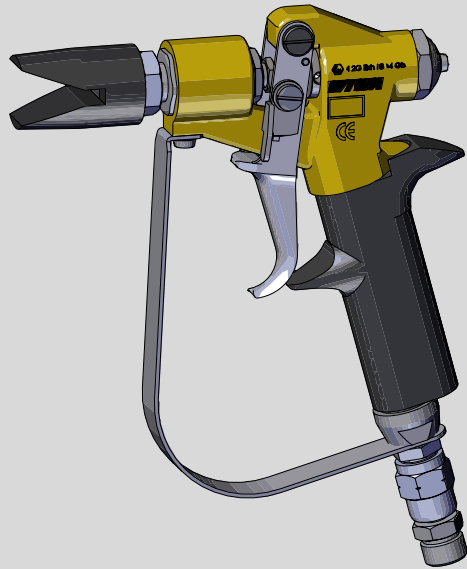


Operation Manual

WIWA 250

Airless Spray Gun



EU declaration of conformity



in accordance with ATEX Directive 2014/34/EU and Annex II, No. 1 A of Machine Directive 2006/42/EG

The company **WIWA Wilhelm Wagner GmbH & Co. KG**
35633 Lahnau
Gewerbestraße 1–3
Germany
hereby declares that the spray gun type **WIWA 250**

conforms with aforementioned provisions.

The listed spray gun is assigned to Group II, Category 2G.

Labeling:  II 2G Ex h IIB T4 Gb

Responsible for documentation: **WIWA**, +49 (0)6441 609-0

Lahnau, December 19, 2025

Place, Date



Dipl.-Ing. (FH) Peter Turczak
Managing Director

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1 Foreword

Dear valued customer,

We are delighted that you have chosen one of our spray guns.

This operation manual is directed at the operating and maintenance personnel. It contains all information required in order to handle this spray gun.



The owner must ensure that the operating and maintenance personnel always have access to a copy of the operation manual in a language that they understand.

In addition to the operation manual, further information is also essential for the safe operation of this spray gun. Read and observe the directives and accident prevention regulations valid in your country.

In Germany, these are:

- ▶ DGVU 100-500, chap. 2.29 “Processing coating materials”,
- ▶ DGVU 100-500, chap. 2.36 “Working with fluid jets”,

both from the professional association for gas, district heating and water management.

We recommend enclosing all relevant directives and accident prevention regulations with the operation manual.

Furthermore, always observe the safety data sheets, manufacturer’s instructions and processing guidelines for coating or conveyance materials.

If questions should arise, we would be happy to assist you. We wish you excellent working results with your spray gun

WIWA Wilhelm Wagner GmbH & Co. KG

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2 Safety

This spray gun has been designed and manufactured with consideration to all safety aspects. It reflects current engineering practice and the valid accident prevention regulations. The spray gun has left the factory in faultless condition and guarantees a high level of technical safety. However, improper operation and misuse will pose a risk to:

- ▶ the life and limb of the operator or third parties,
- ▶ the machine and other property of the owner,
- ▶ the efficient function of the machine.

It is fundamentally prohibited to implement any method of work that has a negative influence on the safety of the operating personnel and the spray gun. All persons involved in the commissioning, operation, care, repair and maintenance of the spray gun must have read and understood the operation manual beforehand – in particular the “Safety” chapter.

Your safety depends on it!

We recommend that the spray gun operator have this confirmed in writing.

2.1 Explanation of symbols

Safety notes give warning of potential accident risks and describes the measures required for accident prevention. In the **WIWA** operation manuals, safety notes are highlighted and labeled as follows:

DANGER

Signals a risk of accidents that are very likely to result in serious injuries and even death, if the safety note is not observed!

WARNING

Signals a risk of accidents that may result in serious injuries and even death, if the safety note is not observed!

CAUTION

Signals a risk of accidents that may result in injuries, if the safety note is not observed!



Signals important information for working correctly with the spray gun. A failure to observe this may result in damage to the machine or its environment.

Various pictograms are used in the safety notes for accident risks that may result in injury, depending on the hazard source — examples:



General risk of accident



Risk of explosion due to explosive atmosphere



Risk of explosion due to explosive substances



Risk of accident due to electricity or electrostatic charge



Warning of corrosive substances



Risk of crushing due to moving parts



Risk of injuries due to rotating parts



Risk of burning due to hot surfaces



Risk of freezing due to cold surfaces

The first line of the safety instructions indicates the personal protective equipment that must be worn. This is also highlighted and labeled as follows:



Wear protective clothing

Signals an instruction to wear the prescribed protective clothing, in order to prevent skin injuries due to the processing material or gases.



Use eye protection

Signals an instruction to wear protective goggles, in order to prevent eye injuries due to material spray, gases, vapors or dust.



Use ear defenders

Signals an instruction to wear ear defenders, in order to prevent damage to hearing caused by noise.



Use respiratory protection

Signals an instruction to use respiratory protection, in order to prevent damage to the respiratory tract caused by gases, vapors or dust.



Wear protective gloves

Signals an instruction to use respiratory protection, in order to prevent damage to the respiratory tract caused by gases, vapors or dust.



Wear safety shoes

Signals an instruction to wear safety shoes, in order to prevent foot injuries due to falling, toppling or rolling objects, as well as slipping on slippery floors.



Signals references to directives, work instructions and operation manuals that contain very important information and must be observed.

2.2 Safety notes



WARNING

Always remember that the spray gun is operated with very high pressures and can cause life-threatening injuries if handled incorrectly!



Always observe and follow all the information in this operation manual and in the operation manual of the spraying device on which the spray gun is operated.

2.2.1 Working pressure



WARNING

Parts that are not designed for the maximum permissible working pressure may rupture and cause serious injuries.

- ▶ The maximum permissible working pressure of the spray gun must be the same or greater than the maximum permissible working pressure of the spraying device on which it is operated.
- ▶ Material hoses and hose assemblies must comply with the maximum working pressure, including the required safety factor.
- ▶ Material hoses may not exhibit leakage, kinks, signs of wear or bulges.
- ▶ Hose assemblies must be tight.

2.2.2 Risks due to the spray jet



WARNING

The material exits the spray gun under very high pressure. The spray jet can cause serious injuries through its cutting action, or by penetrating the skin or eyes.

- ▶ Never aim the spray gun at yourself, other persons or animals!
- ▶ Never hold your fingers or hand in front of the spray gun!
- ▶ Never reach into the spray jet!
- ▶ Always hold the spray gun tightly in your hands while working since great recoil forces can arise at high working pressures.



WARNING

An unintended ejection of material from the spray gun can cause personal injury and property damage.

- ▶ Secure the spray gun whenever interrupting work!
- ▶ Prior to each commissioning, always check the spray gun lock!

2.2.3 Risks due to electrostatic charge



WARNING

The high flow velocities in the airless or AirCombi spray process can result in an electrostatic charge. Static discharges can result in fire and explosions.

- ▶ Ensure that the machine is correctly grounded!
- ▶ Also ground the object that is to be coated.
- ▶ Never spray solvents or materials containing solvents into narrow-mouthed cans or drums with a bung opening!
- ▶ Only use electrically conductive material hoses. All original material hoses from **WIWA** are conductive and designed for our devices.
- ▶ Only use electrically conductive accessories/accessory parts.



WARNING

Dirty machines can become electrostatically charged. Static discharges can result in fire and explosions.

- ▶ Keep the machine clean.
- ▶ Always perform cleaning work outside of EX zones.

2.2.4 Risks due to hot surfaces



CAUTION

When using material heaters on the spraying device being used, the spray gun can get hot. A risk of burns exists.

- ▶ When processing heated materials always wear protective gloves with forearm protection!
- ▶ The material hoses may not touch the hot surfaces of the material heater.


2.2.5 Explosion protection

The following short designations are used in the instructions of **WIWA**:

- ▶ Ex protection: Explosion protection
- ▶ Ex area: potentially explosive or non-explosion protected area
- ▶ Non-Ex area: non-explosive or explosion protected area
- ▶ Ex zone: Explosion protection zone according to ATEX Directive
- ▶ ATEX knowledge: Knowledge of explosion protection according to ATEX Directive



Devices that are not explosion-protected must not be used in operating facilities that fall under the explosion protection ordinance!

Explosion-protected machines can be identified by the corresponding  mark on the type plate and/or the ATEX declaration of conformity provided.

Explosion-protected devices fulfill the requirements of the ATEX Directive for the device group, device category and temperature class cited on the device or in the declaration of conformity.

The owner is responsible for designating the zoning in accordance with ATEX Directive, Appendix II, No. 2.1–2.3 in accordance with the stipulations of the responsible regulatory body. The owner is required to check and ensure that all technical data and labeling comply with the applicable stipulations according to ATEX.

For applications, whereby a failure of the device can lead to dangers to personnel, the owner is required to implement appropriate safety measures.

2.2.6 Health risks



CAUTION

Depending on the materials being processed, solvent vapors may arise, which could cause damage to health and property.

- ▶ Make sure the workplace is sufficiently ventilated and aired.
- ▶ Always observe the safety data sheets and processing instructions of the material manufacturer.



When handling paint, solvents, oils, greases, and other chemical substances, observe the safety and portioning instructions of the manufacturer and the generally applicable regulations.



Only use suitable skin protection, skin cleansing and skincare products for cleansing the skin.

In systems that are closed or under pressure, dangerous chemical reactions may arise, if parts produced from aluminum or galvanized parts come into contact with 1,1,1 - trichloroethane, methylene chloride or other solvents that contain halogenated chlorinated hydrocarbons (CFCs). If you wish to process materials that contain the aforementioned substances, we recommend that you contact the material manufacturer to clarify their suitability for use.

A range of machines in rust and acid-resistant designs is available for these types of materials.

2.3 Safety features



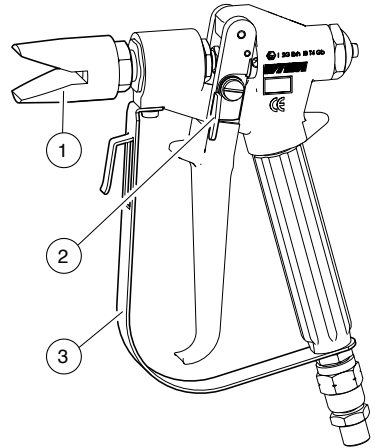
WARNING

If one of the safety features is missing or is not fully functional, the operating safety of the device is not guaranteed!

- ▶ Take the device out of service immediately if you detect defects on the safety features or any other faults on the device.
- ▶ Only put the device back into operation once the faults have been fully rectified.

The device is equipped with the following safety features:

No.	Designation
1	Nozzle protector
2	Safety lever
3	Guard bracket



Check the safety features on the device:

- ▶ Prior to commissioning,
- ▶ Always prior to starting work,
- ▶ After all set-up work,
- ▶ After all cleaning, maintenance, and repair work.

Fig. 1: Safety features on the spray gun

Checklist:

- Function of the safety lever OK?
- Nozzle protector securely installed?
- Guard bracket securely installed and undamaged?

2.3.1 Nozzle protector

The nozzle protector prevents damage to the spray nozzle, which can arise e.g. if the spray gun falls down.

Furthermore, contact with the palm of your hand with the spray jet directly at the nozzle outlet is prevented.



WARNING

If the spray gun is operated without the nozzle protector, serious injuries and property damage can result.

- ▶ Never put the spray gun into operation without the nozzle protector.

2.3.2 Safety lever

The spray gun is secured against unintentional actuation with the safety lever. The safety lever is folded down against the trigger.



The spray gun must be secured during each interruption of work - even if it is very short.

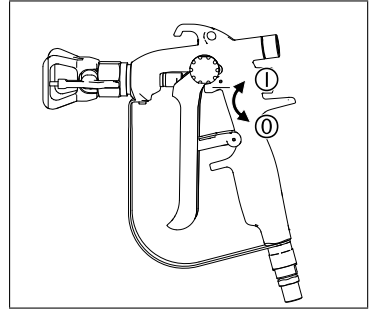


Fig. 2: Gun is secured

To unlock the gun, the safety lever is folded upwards.

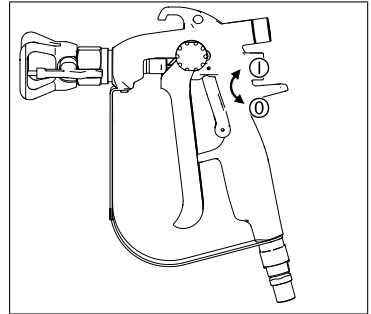


Fig. 3: Gun is ready

2.3.3 Guard bracket

The guard bracket secures the spray gun against an unintentional actuation of the trigger – e. g. due to the spray gun being bumped or falling down.

2.4 Operating and maintenance personnel

2.4.1 Obligations of the owner

The owner:

- ▶ is responsible for training the operating and maintenance personnel,
- ▶ must instruct the operating and maintenance personnel on correct handling of the spray gun, and on wearing the correct work clothing and protective equipment,
- ▶ must make work aids, such as lifting gear for transporting the spraying device or container, available to the operating and maintenance personnel,
- ▶ must make the user manual accessible to the operating and maintenance personnel and must ensure that it remains constantly available,
- ▶ must ensure that the operating and maintenance personnel have read and understood the user manual.

Only then are they permitted to put the spray gun into operation.

2.4.2 Personnel qualifications

Differentiation is made between two groups of personnel, depending on their qualifications:

- ▶ **Instructed operators** have received verified instruction from the spray gun owner regarding the tasks entrusted to them and the possible risks in the event of incorrect conduct.
- ▶ **Trained personnel** have received instruction provided by the spray gun manufacturer and are capable of carrying out maintenance and repair work on the spray gun, independently recognizing possible dangers and avoiding risks.

2.4.3 Authorized operator

Activity	Qualification
Set-up and operation	Instructed operator
Cleaning	Instructed operator
Maintenance	Trained personnel

Repair

Trained personnel



Children, young persons under the age of 16 and untrained personnel may not operate this spray gun.

2.4.4 Personal protective equipment



Wear protective clothing

Always wear the protective clothing stipulated for your working environment (e.g. anti-static protective clothing in potentially explosive areas) and also observe the recommendations in the safety data sheet of the material manufacturer.



Use Eye Protection

Wear protective goggles in order to prevent eye injuries due to material spray, gases, vapors or dust.



Use Ear Defenders

Suitable noise protection equipment must be made available to the operating personnel. The machine owner is responsible for compliance with the accident prevention regulation "Noise" (BGV B3). It is therefore necessary to pay particular attention to the conditions at the installation site – for example, noise pollution can increase if the machine is installed in or on hollow bodies.



Use respiratory protection

Although the airless and AirCombi spray processes minimize the paint mist with the right pressure adjustment and correct work method, we recommend that you use a respiratory protection mask.



Wear Protective Gloves

Wear anti-static, chemical-resistant protective gloves with forearm protection to prevent injuries due to aggressive chemicals, burns when processing heated materials, or freezing due to contact with very cold surfaces.



Wear Safety Shoes

Wear anti-static safety shoes, in order to prevent foot injuries due to falling, toppling or rolling objects, as well as slipping on slippery floors.

2.5 Warranty and liability

Except when otherwise stipulated,

- ▶ our General Terms and Conditions (GTC) apply for deliveries within Germany,
- ▶ our Orgalime SI 14 apply for deliveries to all other countries.

2.5.1 Spare parts

- ▶ When maintaining and repairing the spray gun, only original spare parts from **WIWA** may be used.
- ▶ If spare parts are used, that have not been produced or supplied by **WIWA**, the warranty is voided and all liability shall be excluded.

2.5.2 Accessories

- ▶ If you use original **WIWA** accessories, their suitability for use in our machines is guaranteed.
- ▶ If you use third-party accessories, these must be suitable for the spray gun – in particular with respect to the working pressure, the connection variables, and use in Ex-zones, if applicable. **WIWA** will not be liable for any damage or injuries due to these parts.

- ▶ It is essential to observe the safety provisions applicable to the accessories. You can find these safety provisions in the separate operation manuals for the accessories.

2.6 How to respond in an emergency

2.6.1 Leakage



WARNING

In case of leakage, material may escape under very high pressure and cause serious personal injuries and property damage.

- ▶ Immediately shut down the spraying device and relieve the pressure. Observe and follow the information in the user manual of the spraying device for this.
- ▶ Tighten threaded connections and replace defective parts (must be performed by trained personnel).
- ▶ Do not seal leakage at connections and on high pressure hoses with the hand or by wrapping.
- ▶ Do not patch material/high pressure hoses!
- ▶ Check hoses and threaded connections for leak-tightness before starting the spraying device up again.

2.6.2 Injuries

In case of injuries caused by processing material or cleaning agents, always have the safety data sheet ready to show to the doctor (supplier or manufacturer address, their telephone number, material designation and material number).

3 Description

The **WIWA 250** is a handy airless spray gun with a smooth two-finger trigger for fine painting work and large area output.

It has a maximum permissible working pressure of 300 bar and a maximum permissible material temperature of 80 °C.

This data is also noted directly on the gun body like the CE and ATEX marking.

The **WIWA 250** can be used in connection with all known airless spraying devices.

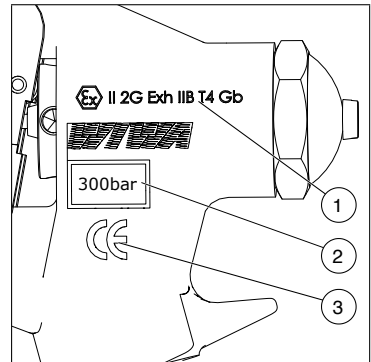


Fig. 4: Data on the gun body

No.	Designation
1	ATEX marking
2	Max. working pressure
3	CE mark
4	Max. material temperature

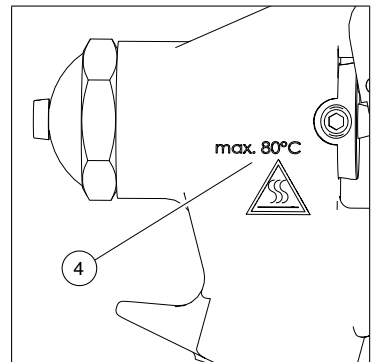


Fig. 5: Data on the gun body

3.1 Intended use

The **WIWA 250** is intended for applying low-viscosity to high-viscosity materials in the commercial and industrial sector.




Intended use also includes:

- ▶ observing the technical documentation and
- ▶ complying with the operating, maintenance and servicing guidelines.

3.2 Erroneous use

Any use other than that stipulated in the technical documentation is deemed to be erroneous use, may result in personal injury or property damage, and will void the warranty.

Erroneous use applies in particular if

- ▶ impermissible materials are processed,
- ▶ unauthorized modifications or changes are implemented,
- ▶ the safety features are removed, modified or bypassed,
- ▶ spare parts are installed that were not manufactured or delivered by **WIWA**,
- ▶ accessories are used that are not suitable for the machine (see section 2.5.2 on page 16),
- ▶ spray guns without  identification are used in potentially explosive atmospheres,
- ▶ the spray gun is operated outside of the operating limits according to the type plate.

3.3 Model overview

Art. no.	Model	Swivel joint	Other
0011258	250	–	
0632559	250 D-FI	yes	with push-in filter in the handle
0646997	250 D	yes	with reversing switch

The following applies for all models:

- ▶ Two-finger trigger with plastic handle
- ▶ Material connection: $\frac{3}{8}$ " NPSM
- ▶ Working pressure: 250 bar (max. 300 bar)
- ▶ Max. material temperature: 80 °C



Additional information on the thread and connection variables can be found in the spare part lists.

3.4 Construction

No.	Designation
1	Nozzle protector
2	Gun body
3	Safety lever
4	Guard bracket
5	Two-finger trigger
6	Gun handle
7	Swivel joint
8	Connection for the material hose

The models 250 D and 250 D/FI are equipped with a swivel joint at the material inlet, which enables the flexible use of the spray gun without twisting the material hose.

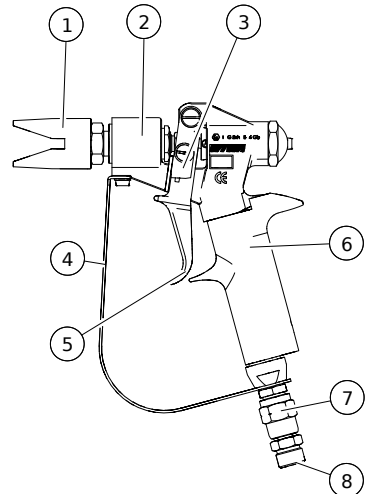


Fig. 6: Model 250 D

3.5 Optional expansions and accessories

The following list contains just some of the most common accessories and expansions. The detailed accessory catalog can be found at www.wiwa.de. For further information and order numbers, you can also contact a **WIWA** dealer or **WIWA** customer service.

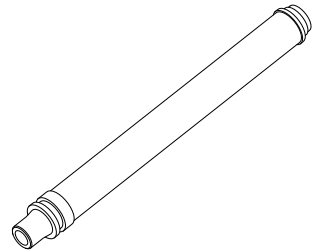
Reversible nozzles

These nozzles are manufactured out of high-quality carbide and are suitable for all spray guns that are equipped with an appropriate nozzle protector and a reversing switch. The nozzle size conforms to the application of the spray gun.

Push-in filter

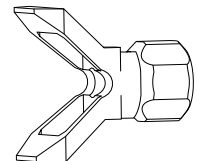
Push-in filters (for FI models) prevent clogging of the spray nozzle. They have a greater filter surface than the nozzle filters.

Art. no.	Mesh size	Color
0638201	M 30	green
0414700	M 50	white
0646606	M 65	black
0467448	M 100	yellow
0638200	M 150	blue
0467456	M 200	red



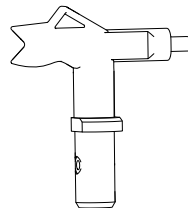
Reverser with nozzle protector

The reversing switch with protector is used for accommodating the reversible nozzle. It is always to be installed in combination with the reversing switch and is part of the scope of delivery.



Reversible nozzle

Easy cleaning and flushing of the spray nozzles is possible by reversing the switch lever of the reversible nozzle. The spray direction is in the direction of the arrow, opposite of flushing. Observe the separate instructions for the installation of the reversing switch.

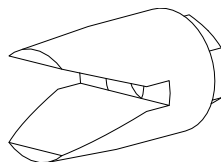


Standard nozzles

The standard nozzles can be used for all airless spray guns. They are manufactured out of high-quality carbide. The nozzle size conforms to the application of the spray gun. A tabular list of the nozzle sizes and applications can be found in the accessory catalogue.

Standard nozzle protector

The nozzle protector prevents damage to the spray nozzles (e. g. due to the spray gun falling down).



4 Transport and assembly

The spray gun left the factory in faultless condition, packaged correctly for transport.



Check the spray gun at the time of receipt for any transport damage and for completeness.

4.1 Scope of delivery

The spray gun is delivered with:

- ▶ a nozzle protector, which is already installed on the spray gun,
- ▶ the operation manual,
- ▶ a 2.5 mm hexagon socket wrench,
- ▶ an SW 12 / 14 / 17 / 19 / 22 / 24 combination wrench,
- ▶ a pull-off ring for the disassembly/assembly of the packing.

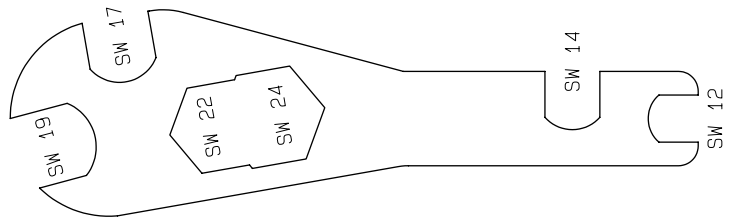


Fig. 7: Combination wrench

4.2 Assembly

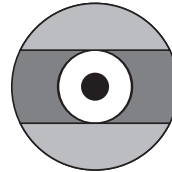
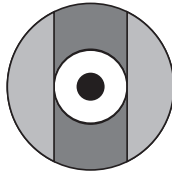
Before connecting the spray gun to the spraying device, first install all accessory parts required for operation to the spray gun.

4.2.1 Inserting the spray nozzle



The nozzle size conforms to the application of the spray gun, the processing material and the object to be coated.

1. Thoroughly flush the spray nozzle with a solvent.
2. Unscrew the nozzle protector from the spray gun.
3. Take the gasket out of the nozzle protector.
4. Insert the spray nozzle exactly in the recess of the nozzle protector.
5. Place the gasket in the nozzle protector.
6. Screw the nozzle protector with the nozzle onto the spray gun hand tight.
7. Adjust the nozzle protector according to the desired spray pattern (horizontal or vertical):



8. Tighten the sleeve nut with an open end spanner.

4.2.2 Installing the push-in filter in the handle



The push-in filters are special accessories for FI models.

1. Unscrew the double nipple and the swivel joint from the gun handle, paying attention to the gasket while doing so.
2. Release the screw with which the securing bracket is fastened to the gun body.

3. Turn the securing bracket to the side.
4. Unscrew the gun handle, paying attention to the gasket while doing so.
5. Insert the push-in filter with the long end piece upward into the conical gasket of the gun body.

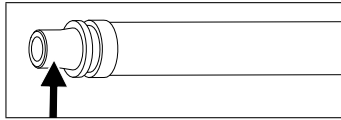


Fig. 8: Insert this end piece in the gasket

6. Install the gun handle, the securing bracket and the double nipple and swivel joint in reverse order.



Make sure the gaskets are seated correctly. Damaged gaskets must be replaced.

4.2.3 Connecting the material hose

1. Make sure that the spraying device is de-pressurized and the spray gun is secured.
2. Screw tight the material hose with the union nut to the material outlet of the spraying device.
3. Screw tight the material hose with the union nut to the double nipple of the spray gun. Hold the spray gun with an open end spanner so that the spray gun does not turn.

The spray gun is now connected.

5 Operation



Observe and follow the operation manual of the spraying device.

5.1 Putting the spray gun into operation

1. Make sure that the spraying device is ready for operation.
2. Set the spraying pressure on the spraying device.
3. Unlock the spray gun.
4. The spray gun is ready for operation.

5.1.1 Setting the spraying pressure

Observe the following information when setting the spraying pressure:

- ▶ The optimum spraying pressure has been attained when an even application with fading edge zones is obtained.
- ▶ Only operate the spray gun with as much spray pressure as required, in order to attain good atomization at the recommended spray distance of approx. 30–40 cm (12"–16").
- ▶ An overly high spraying pressure increases material consumption and paint mist.
- ▶ If the spraying pressure is too low, this leads to streaking and varying coating thickness.

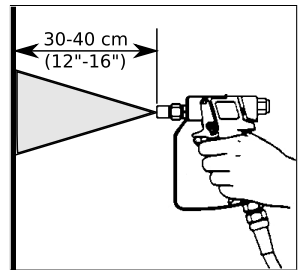


Fig. 9: Spray distance

5.1.2 Tips for good coatings

- ▶ Hold the spray gun at a right angle (90°) to the surface to be coated. As soon as you hold the spray gun at a different angle, the coating will become uneven and patchy (see Fig. 10).
- ▶ Ensure an even speed of the movement and guide the spray gun parallel to the coating surface. Weaving with the spray gun leads to an uneven coating (see Fig. 11).
- ▶ Move the spray gun with the arm and not with the wrist.
- ▶ Move the spray gun prior to activating the trigger. In this way you will achieve a faultless, soft and smooth overlapping of the spray jet and avoid an excessively thick material application at the start of the coating process.
- ▶ Release the trigger before stopping the movement.
- ▶ Change the spray nozzle before this becomes worn.

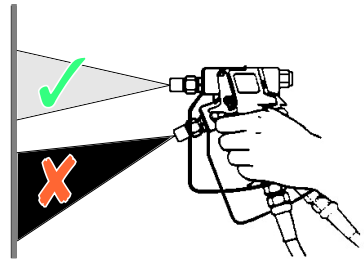


Fig. 10: Spray angle



Worn nozzles lead to a high color consumption and adversely affect the quality of the color application.

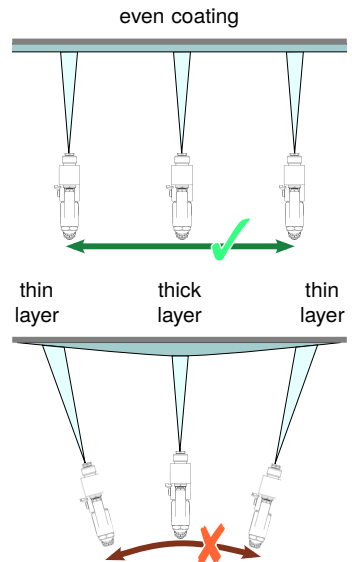


Fig. 11: Gun guidance

5.2 Work interruption

1. Lock the spray gun.
2. Disassemble the nozzle protector and the nozzle.
3. Immerse the nozzle protector incl. nozzle in a container with a suitable cleaning agent. This will prevent the coating material from hardening in the nozzle opening and the nozzle from clogging.



When processing two-component materials or water-based coatings, the spray gun must be flushed together with the spraying device within the pot life specified by the material manufacturer.

4. Clean the spray gun externally at the end of work.

6 Maintenance



WARNING

If untrained personnel carry out maintenance or repair work, they endanger themselves and others, and risk the operational safety of the device.

- ▶ Maintenance or repair work on the spray gun may only be performed by **WIWA** customer service or personnel trained to do so.



Observe and follow the operation manual of the spraying device.

Prior to maintenance or repair work:

1. Flush the spray gun together with the spraying device (in particular when processing two component materials).
2. The spraying device pressure must be completely relieved.
3. Open the spray gun briefly once more to relieve the pressure.
4. Disassemble the spray gun from the spraying device.



WARNING

Despite relieving the pressure, residual pressures can still be present due to material congestion or clumping, which can suddenly escape during disassembly work and cause serious injuries.

- ▶ You must be particularly careful during disassembly work!
- ▶ When disassembling material hoses, cover the screw connection with a cloth in order to catch possible material sprays.

After completing maintenance or repair work, check that the spray gun is working properly.

6.1 Maintenance schedule

Time frame	Activity	for further reading
As needed	Lubricate spray gun	section 6.2 on page 30
	Set the play of the trigger	section 6.3 on page 30
At the end of work	Clean the push-in filter (if present)	section 6.4 on page 31

6.2 Lubricating the spray gun

The spray gun must be lubricated in order to maintain the ease of movement of all moving parts. Lubricate the joint of the trigger and the safety lever with one drop of oil as needed. Wipe off excess oil.

1. Remove the screw from the sealing cap.
2. Press the trigger up to the stop.
3. Put one drop of silicone-free oil (e. g. Mesamoll) into the opening of the sealing cap.
4. Let go of the trigger again.
5. Insert the screw back in the sealing cap.

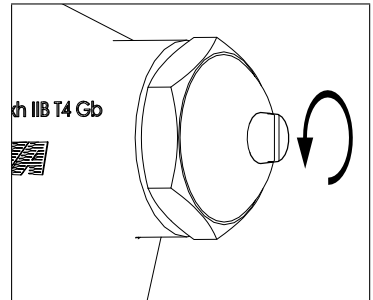


Fig. 12: Screw plug



Proceed very sparingly with oil while lubricating. Excess oil can drip down and influence the spray pattern. Wipe off excess oil.

6.3 Setting the play or grip width of the trigger

The trigger should have a play of 2-3 mm.

1. Insert the supplied hexagon socket wrench in one of the holes on the guide sleeve (see Fig. 13).
2. Turn the guide sleeve until the threaded pin is positioned in the gap between the trigger and the gun body (see Fig. 14).
3. Unscrew the threaded pin using the hexagon socket wrench one revolution.
4. Remove the sealing cap.
5. Place the hexagon socket wrench on the threaded pin behind the pressure springs.
6. Set the position of the guide sleeve and therefore the play of the trigger by turning the hexagon socket wrench. A noticeable play must exist on the trigger:
 - ▶ ○ Turn clockwise ⇒ play gets bigger,
 - ▶ ○ Turn counterclockwise ⇒ play gets smaller.
7. Screw tight the sealing cap again with the aid of the screw.
8. Tighten the threaded pin in the gap between the trigger and the gun body again using the hexagon socket wrench.

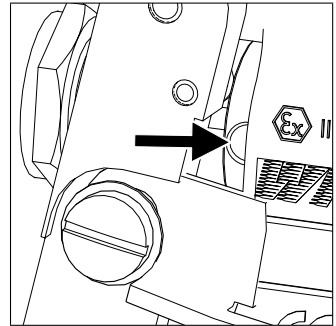


Fig. 13: Hole in the guide sleeve

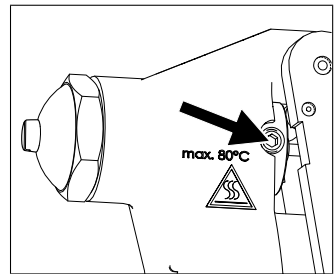


Fig. 14: Threaded pin

6.4 Cleaning the push-in filter



The push-in filters are special accessories for FI models.

1. Disassemble the material hose from the spray gun.
2. Unscrew the double nipple and the swivel joint from the gun handle, paying attention to the gasket while doing so.
3. Release the screw with which the securing bracket is fastened to the gun body.
4. Turn the securing bracket to the side.
5. Unscrew the gun handle, paying attention to the gasket while doing so.
6. Pull out the push-in filter downward.
7. Clean the push-in filter with a solvent recommended by the material manufacturer.
8. Insert the push-in filter with the long end piece upward into the conical gasket of the gun body:

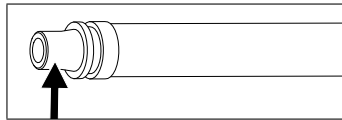


Fig. 15: Insert this end piece in the gasket

9. Install the gun handle, the securing bracket and the double nipple and swivel joint in reverse order.



Make sure the gaskets are seated correctly. Damaged gaskets must be replaced.

6.5 Replacing the packing and valve needle

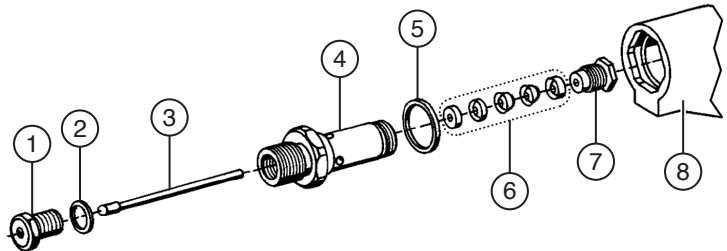


Fig. 16: Packing and valve needle

1. Unscrew the nozzle protector including spray nozzle and gasket from the spray gun (SW 22).
2. Hold the trigger completely depressed. Unscrew the valve seat including gasket.

No.	Description
1	Valve seat
2	Gasket
3	Valve needle
4	Insert
5	Gasket
6	Packing
7	Packing gland screw
8	Gun body

3. Insert the supplied hexagon socket wrench in one of the holes on the guide sleeve (see Fig. 13 on page 31).
4. Turn the guide sleeve until the threaded pin is positioned at the recess of the gun body (section 6.3 on page 30)
5. Unscrew the threaded pin using the hexagon socket wrench one revolution.
6. Set a play of 2-3 mm on the trigger (section 6.3 on page 30, Fig. 13 and Fig. 14).
7. Tighten the packing gland screw (max. $\frac{1}{4}$ revolution).
8. Check the spray gun for leak-tightness. In the event of leaks, relieve the spray gun pressure and tighten the packing gland screw $\frac{1}{4}$ revolution again.

9. Turn the guide sleeve until the threaded pin is positioned at the recess of the gun body (Fig. 14 on page 31).
10. Unscrew the threaded pin using the hexagon socket wrench one revolution.
11. Pull out the valve needle to the front using small pliers. The spherical head on the valve needle may not be damaged in the process.
12. Release the nut between the trigger and gun body. Hold the trigger depressed in order to have enough room to position the combination wrench.
13. Place the supplied pull-off ring on the insert and screw the nozzle protector (without nozzle) and the union nut tightly on it. The insert is pulled out while doing so.
14. Remove the gasket that is now exposed. Unscrew the packing gland screw.
15. Remove the packing from the insert - possibly press it out from the opposite side using a mandrel, a screw or the like.
16. Clean all parts with the cleaning agent recommended by the material manufacturer.
17. Check the packing, the valve needle and the gaskets for wear.
18. Replace worn parts.

Assembly occurs in reverse order.

Please note the following when assembling the packaging with the valve needle



Pay attention to the correct position of the packings (V on the pressure side) and the needle (spherical head to the front).

1. Grease all parts sparingly with an acid-free oil or grease.
2. Slide the packing and the packing gland screw on the valve needle.
3. Insert the packing and socket in the gun body.
4. Pull the valve needle out again and screw on the packing gland screw hand tight.

5. Set a play of 2-3 mm on the trigger (see Fig. 13 and Fig. 14 on page 31).
6. Tighten the packing gland screw (max. $\frac{1}{4}$ revolution).
7. Check the spray gun for leak-tightness. In the event of leaks, relieve the spray gun pressure and tighten the packing gland screw $\frac{1}{4}$ revolution again.

6.6 Cleaning the guide sleeve

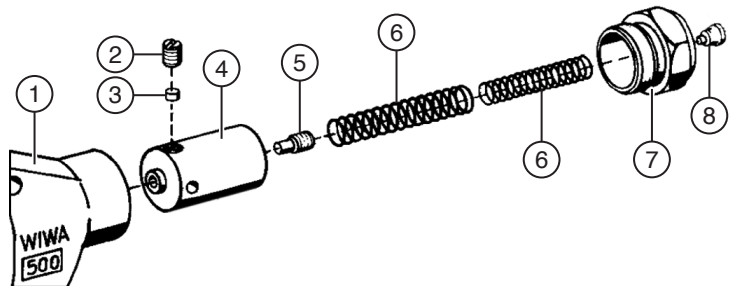


Fig. 17: Guide sleeve

1. Insert the supplied hexagon socket wrench in one of the holes on the guide sleeve (see Fig. 13 on page 31).
2. Turn the guide sleeve until the threaded pin is positioned at the recess of the gun body (see Fig. 14 on page 31).
3. Unscrew the threaded pin using the hexagon socket wrench one revolution.

No.	Description
1	Gun body
2	Threaded pin
3	Press-on plug
4	Guide sleeve
5	Shoulder screw
6	Pressure springs
7	Screw plug
8	Screw

4. Remove the screw from the screw plug.
5. Clamp the spray gun in a vice and release the screw plug (SW 24).
6. Remove the pressure springs from the guide sleeve.
7. Pull out the guide sleeve.

8. Grease the guide sleeve and the pressure spring(s) with acid and silicone-free grease.
9. Insert the guide sleeve back in the gun body.



The threaded part of the guide sleeve must be flush with the gun body.

10. Insert the pressure springs in the guide sleeve.
11. Wet the thread of the screw plug with weak thread locker (e.g. Loctite red) and screw the screw plug back tightly into the gun body.
12. Set a play of 2-3 mm on the trigger (see section 6.3 on page 30 from work step 4).
13. Tighten the packing gland screw (max. 1/4 revolution).
14. Check the spray gun for leak-tightness. In the event of leaks, relieve the spray gun pressure and tighten the packing gland screw 1/4 revolution again.
15. Tighten the threaded pin again using the hexagon socket wrench.

6.7 Replacing the gaskets on the gun handle

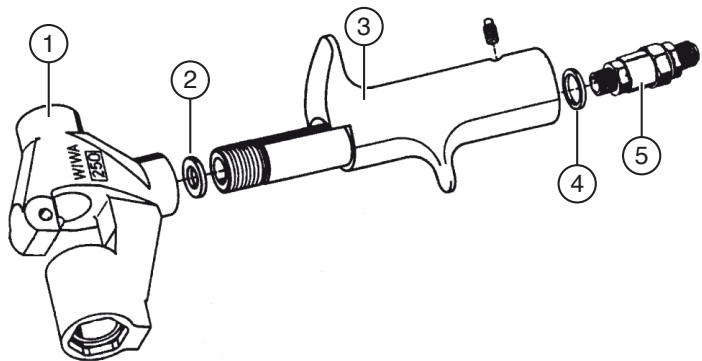


Fig. 18: Gaskets on the gun handle

1. Disassemble the material hose from the spray gun.
2. Unscrew the double nipple and the swivel joint from the gun handle, paying attention to the gasket while doing so.
3. Release the screw with which the securing bracket is fastened to the gun body.

No.	Description
1	Gun body
2	Gasket
3	Handle
4	Gasket
5	Double nipple or swivel joint

4. Turn the securing bracket to the side.
5. Unscrew the gun handle, paying attention to the gasket while doing so.
6. Check both gaskets for damage.
7. Replace damaged gaskets.
8. Install the gun handle, the securing bracket and the double nipple and swivel joint in reverse order. Make sure the gaskets are seated correctly while doing so.

7 Eliminating operational faults



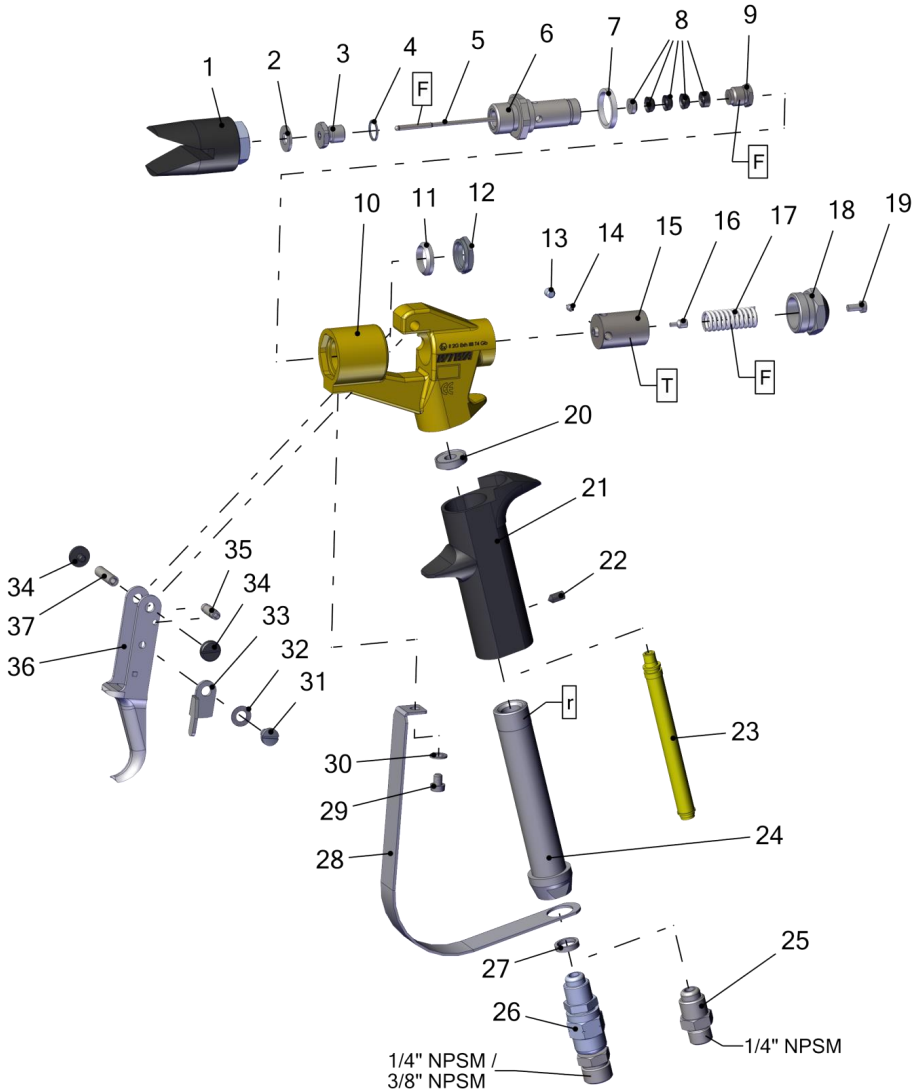
Only eliminate operational faults if you are equipped with the prescribed personal protective equipment. Details on this can be found in section 2.4.4 on page 15.

fault	possible cause	remedy
Spray gun does not close correctly	Valve seat or valve needle defective	Replace packing and valve needle (see section 6.5 on page 33)
Spray gun is leaking at the packing gland screw	Packing not sufficiently prestressed	Tighten packing gland screw slightly
	Packing or valve needle defective	Replace packing and valve needle (see section 6.5 on page 33)
Trigger is stiff	Guide sleeve is sticky with hardened material	Clean guide sleeve (see section 6.6 on page 35)
	Packing or valve needle defective	Replace packing and valve needle (see section 6.5 on page 33)
Spray gun is leaking at the handle	Gasket between double nipple or swivel joint and handle defective	Replace gasket (see section 6.7 on page 36)
	Gasket between handle and gun body defective	Replace gasket (see section 6.7 on page 36)

8 Spare parts list

Airless Spritzpistole
Airless Spray Gun
Pistolet sans air
WIWA 250

Serie • Serie • Série: **000**
 Datum • Date • Date: **10.03.2022**



Pos.-Nr. in Klammern () sind keine Bestandteile dieser Baugruppe / items marked with () are not part of assembly shown / Les pièces entre parenthèses ne font pas partie du sous-groupe

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Airless Spritzpistole

Airless Spray Gun

Pistolet sans air

WIWA 250

Serie • Serie • Série: 000

Datum • Date • Date: 10.03.2022

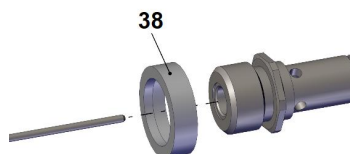
Pos.	Number	Qty.	Version	V ¹ /D ² /R ³	Artikel- bezeichnung	Part Description	Désignation des articles
1	0638632	1	A - C		Düsenschutz	tip guard	protection de buse
	0649205	1	D		Wendeschalter	reversible guard	inverseur de marche
2	0218111	1	A - C	V, D, R	Dichtung	gasket	joint
3	0160989	1		V, R	Ventilsitz	valve seat	siège
4	0217824	1		V, D, R	Dichtung	gasket	joint
5	0411299	1		V, R	Ventilnadel	valve needle	pointeau
6	0212474	1	A - C		Einsatz	insert	insert
	0644487	1	D		Einsatz	insert	insert
7	0217743	1		V, D, R	Dichtung	gasket	joint
8	0160997	1		V, D, R	Packung kpl.	packing set cpl.	joints cpl.
9	0213802	1			Stopfbuchsen- schraube	packing screw	boulon de serrage
10	0212660	1			Pistolenkörper kpl.	gun body cpl.	corps de pistolet cpl.
11	0218081	1		V, D, R	Dichtung	gasket	joint
12	0213810	1			Mutter	nut	écrou
13	0460702	1			Gewindestift	threaded pin	vis sans tête
14	0213853	1			Druckstopfen	pressure plug	coussin de pression
15	0213845	1			Führungshülse	guide sleeve	douille de guidage
16	0213942	1			Ansatzschraube	shoulder screw	boulon à embase
17	0411876	1		V	Druckfeder	spring	ressort
18	0212628	1			Verschluss- schraube	closure screw	vis de fermeture
19	0460257	1			Schraube	screw	Vis
20	0218251	1		V, D, R	Dichtung	gasket	joint
21	0410934	1			Griff	handle	poignée
22	0460885	1			Gewindestift	threaded pin	vis sans tête
23*	0467448	1	C	V	Einsteckfilter	gun filter	filtre de pistolet
24	0632558	1			Hülse	sleeve	bague de retenue
25	0218405	1	A		Doppelnippel	male adaptor	raccord double male
26	0065013	1	B		Drehgelenk	swivel	raccord tournant
	0064955	1	C, D		Drehgelenk	swivel	raccord tournant
27	0217948	1		V, D, R	Dichtring	gasket	joint
28	0414557	1			Sicherungsbügel	trigger guard	suréte de gachette
29	0460222	1			Schraube	Screw	vis
30	0460230	1			U-Scheibe	washer	rondelle
31	0412325	1			Ansatzschraube	shoulder screw	boulon `embase
32	0460346	1			Federscheibe	spring washer	rondelle

Airless Spritzpistole
Airless Spray Gun
Pistolet sans air

 Serie • Serie • Série: **000**

 Datum • Date • Date: **10.03.2022**
WIWA 250

33	0414581	1			Sicherungshebel	safety lever	verouillage
34	0460354	2			Schraube	screw	vis
35	0489034	1			Rolle	pressure roll	rouleau
36	0489042	1			Abzugshebel	trigger lever	gachette
37	0216208	1			Zwischenstück	intermediate piece	pièce intermédiaire


Werkzeuge / tools / outils

Pos.	Number	Qty.	Version	V ¹ /D ² /R ³	Artikelbezeichnung	Part Description	Désignation des articles
38	0213837	1	A - C		Abziehring	extraction ring	douille arrache-boulons
	0653938	1	D		Abziehring	extraction ring	douille arrache-boulons
	0411035	1			Innensechskant-schlüssel	allen-key	clé à six-pannes
	0411094	1			Kombischlüssel	wrench	clé
	0632560	1	C		Ringschraube für Einsteckfilter	ring screw for filter insert	anneau à vis filtre de pistolet

ohne Abbildung - not illustrated - sans illustration

Number	Qty.	V ¹ /D ² /R ³	Artikelbezeichnung	Part Description	Désignation des articles
0063983		R	Dichtungssatz	seal kit	jeu de joints
0064076			Reparatursatz	repair kit	jeu de réparation

***Filtereinsätze / filter insert / filtre seuls**

Number	Qty.	V ¹ /D ² /R ³	Artikelbezeichnung	Part Description	Désignation des articles
0638201	1	V	M 30 grün	M 30 green	M 30 vert
0414700	1	V	M 50 weiß	M 50 white	M 50 blanc
0646606	1	V	M 65 schwarz	M 65 black	M 65 noir
0647448	1	V	M 100 gelb (Standard)	M 100 yellow	M 100 jaune
0638200	1	V	M 150 blau	M 150 blue	M 150 bleu
0467456	1	V	M 200 rot	M 200 red	M 200 rouge

¹V = Verschleißteile • Wear parts • Pièces d'usure usuelles

²D = Teile des Dichtungssatzes • Parts of seal kit • Pièces de kit de joints

³R = Teile des Reparatursatzes • Parts of repair kit • Pièces de kit de réparation

Airless Spritzpistole

Airless Spray Gun

Pistolet sans air

Serie • Serie • Série: 000

Datum • Date • Date: 10.03.2022

WIWA 250

Version	Number	Connection	11/16 -16 UNS	7/8-14 UNF	Swivel (-D-)	Gun filter
A	0011258	1/4" NPSM	x			
B	0015032	3/8" NPSM	x		x	
C	0632559	1/4" NPSM	x		x	x
D	0646997	1/4" NPSM		x	x	

Sicherungsmittel / Thread sealant / produit d'étanchéité

Symbol / Symbol / Symbole	Beschreibung / Description / Description	Artikel / Bestell-Nr. Article / Order-No. L'article / Référence
[r]	schwach / light / leger	222 / 0000016
[b]	mittel / medium / leger	243 / 0000015
[schw]	mittel, Kunststoff-Stahl / medium, plastic-steel / medium, platique-acier (20ml)	480 / 0000107
[g]	hochfest / high-streng / hautesistance (50ml) hochfest für Cr/Ni-Teile / for Cr/Ni steel parts / pour parties fabriqué de Cr/Ni (50ml)	601 / 0000014 2701 / 0000303
[p]	Rohrdichtungspaste / pipe sealant / pâte d'étanchéité pour tuyaux(50ml)	225 / 0000017
[a]	Aktivator / activator / activateur (500ml) Aktivator für Kunststoffteile / activator for plastic parts / activateur pour pièces de plastique (10ml)	734 / 0000018 770 / 0000108
[t]	Gewindeband / threaded tape / ruban de filetage	/0000099
[k]	2K - Kleber / 2K - adhesive / 2K - adhésif	/0000414

Betriebsmittel / Machinery materials / Equipement de production

Symbol / Symbol / Symbole	Beschreibung / Description / Description	Artikel / Bestell-Nr. Article / Order-No. L'article / Référence
[E]	Fett, säurefrei / acid-free /sans acide	0000025
[T]	Trennmittel / release agent / agent sépérateur bei Verarbeitung von Isozyanate / for application with isozyanate / pour l'application de l'isozyanate	0163333 0640651
[M]	Montagepaste (für R- und RS- Ausführung) / assembly paste (for version R or RS) / pâte d'assemblage (de version R et RS)	0000233
[MS]	Montagespray (für R- und RS- Ausführung) / assembly spray (for version R or RS) / aérosol d'assemblage (de version R et RS)	0000118
[MT]	Montagepaste (für hohe Temperaturen) assembly paste (for high temperatures) d'assemblage (pour hautes températures)	0000057

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