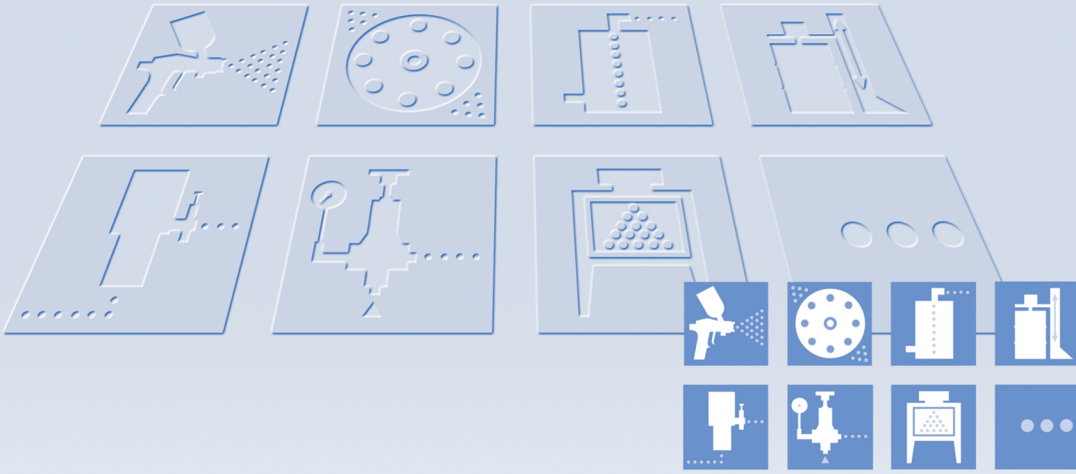

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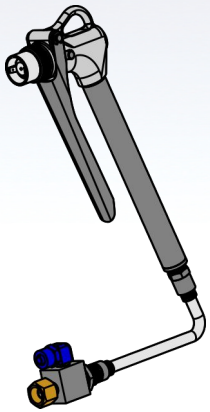
Operating instructions
Release agent spray gun TFP-1



T-Dok-014-GB-Rev.0

■ **200-0261**
Translation of the original operating instructions

Krautzberger

Thank you for selecting a Krautzberger product.

This product has been manufactured following state-of-the-art manufacturing procedures and extensive quality assurance measures. We promise you a product of the highest quality.

If you have questions, requests or suggestions, please contact us. We are always glad to assist you.

Information about the operating manual

This manual provides important information on how to work with the device safely and efficiently. The manual is part of the device and must always be kept in the immediate proximity of the device so that it is accessible to the personnel at all times.

The personnel must have read and understood this manual before starting any work. Compliance with all specified safety information and instructions is a basic requirement for safe working conditions.

In addition, the local occupational safety regulations and general safety rules apply for the area of application of the device.

Due to optional finishing variants, it is possible that the figures shown in this operating manual deviate from your device.

Information about explosion protection

Many of our competitors have been marking their products with the Ex symbol as a matter of principle for some time now.

At Krautzberger we do not do that.

We engineer and manufacture our products in line with currently applicable directives.

If the labelling on the product is required, it is affixed to the product as the result of the necessary analysis of ignition sources. If no labelling is affixed, the analysis of ignition sources and previous experience with the assessment of the suitability of products for use in a potentially explosive area have shown that the product described in this operating manual does not represent a potential source of ignition, with the exception of an electrostatic charge.

Taking into account the potential equalisation (provided by proper earth connection), the use in an area at risk for explosions is permitted in accordance with the currently valid directives.

Table of contents

1 Function and identification

1.1 Function

The release agent spray gun **TFP-1** is designed for the fine atomisation of release agents but is also suitable for processing a wide range of other media.

The release agent spray gunl TFP-1 is not suitable for use in the food and pharmaceutical industries.

The coating material is pressurised when fed into the release agent spay gun. The pressure is typically generated by pumps or pressurised containers. The coating material is atomised using compressed air.

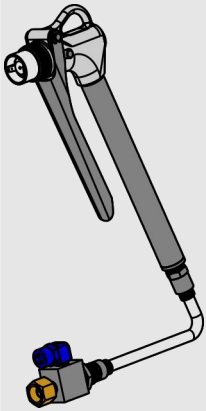
For the TFP-1, the compressed air and coating material are supplied by the Krautzberger “hose-in-hose” system. The coating material hose is located in the hose for the compressed air supply. The air flow is initially released by actuating the trigger. The air forms a turbulence zone in front of this nozzle. The material needle then opens the flow of the coating material.

The further the trigger is pulled through, the greater the volume of coating material that flows into the nozzle system and is sprayed in the air vortex.

Materials

Component	Material
Material nozzles and material needles	Stainless steel
Air nozzles	Chemically nickel-plated brass
Parts of the hand-held spray gun that come in contact with the material	Aluminium

1.2 Identification

Scope of delivery	Type	Product number
	Hand-held spray gun TFP-1	200-0261
	Operating manual	T-Dok-014

Serial number

The serial number of the hand-held spray gun is located on the main element. It serves as a unique identifier.

2 Using this operating manual

2.1 Symbols in this manual

Safety instructions

This manual uses symbols to identify safety instructions. The safety instructions are preceded by signal words that indicate the severity of the hazard.

DANGER!

This combination of symbol and signal word indicates an immediate dangerous situation, which will cause death or severe injuries if it is not averted.

WARNING!

This combination of symbol and signal word indicates a possibly dangerous situation which can cause death or severe injuries if it is not averted.

CAUTION!

This combination of symbol and signal word indicates a possibly dangerous situation which can cause slight injuries if it is not averted.

NOTICE!

This combination of symbol and signal word indicates a possibly dangerous situation which can cause property and environmental damage if it is not averted.

ENVIRONMENT!

This combination of symbol and signal word indicates potential dangers to the environment.

Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for efficient and trouble-free operation.

Example for safety instructions in operating instructions

Safety instructions can refer to specific, individual operating instructions. Such safety instructions are embedded in the operating instructions so that they do not disrupt the reading flow during the execution of the action. The signal words described above are used.

1. Unfasten screw.
2. **CAUTION!**
   Pinching hazard at the cover!

   Carefully close cover.
3. Tighten screw.

Special safety instructions

The following symbols are used in safety instructions to draw the attention to specific hazards:

Warning signs	Type of danger
⚠	Warning – danger zone.

Additional identifications

The following symbols are used in this manual to highlight operating instructions, results, lists, references, and other elements:

Identification	Explanation
→	Step-by-step instructions
⇨	Results of procedural steps
🔗	References to sections in this manual and other applicable documents
■	Lists without specified order
[Pushbuttons]	Operating elements (e.g. pushbuttons, switches), display elements (e.g. signal lights)
'Display'	Screen elements (e.g. pushbuttons, assignment of function keys)

2.2 Personnel requirements

This manual identifies the qualifications of the personnel for the different scopes of work as listed below:

Qualified personnel
Due to their specialised professional training, knowledge, and experience as well as knowledge of the industry-specific standards and regulations, qualified personnel are in a position to perform assigned tasks and to identify and avert potential risks on their own.

Specialised personnel
Due to their specialised professional training, knowledge, and experience as well as knowledge of the industry-specific standards and regulations, qualified personnel are in a position to perform assigned tasks and to identify and avert potential hazards on their own.

User
The user is familiar with the basic regulations on occupational safety and accident prevention.

2.3 Personal protective equipment

Personal protective equipment is used to protect persons against adverse impacts on their occupational health and safety.

The personnel must wear personal protective equipment while carrying out the different tasks and while working with the device.

The selection of the protective equipment depends on the environmental conditions at the site of the system owner and the utilised coating material. To ensure the proper selection of personal protective equipment, the information provided by the spray material manufacturer indicated on the safety data sheet must be adhered to.

Description of the personal protective equipment recommended by Krautzberger

The personal protective equipment is described below:

Protective work clothing

Protective work clothing are tight fitting work clothes with low tear resistance, with tight sleeves, and without any protruding parts.

Ear protection

Ear protection provides protection against hearing damage.

Light respiratory protection

The light respiratory protection is used as a protection against hazardous dusts.

Safety goggles

Safety goggles are used to protect the eyes from flying parts and splashes of liquid.

Protective gloves

Protective gloves protect hands from friction, abrasion, puncture wounds, or deeper injuries, as well as from contact with hot surfaces.

Safety shoes

Safety shoes protect the feet against crushing, falling parts or slipping on slippery ground.

Safety helmet

The helmet protects the head against injuries from falling parts and oscillating loads as well as in tight spaces.

3 Safety and responsibility

3.1 Responsibility of the owner

Owner

The owner is the person, who directly operates the machine for commercial or economical purposes or who allows a third-party to use/apply it and who is responsible for the legal product stewardship for the protection of the user, the personnel or third parties.

Owner responsibilities

The machine is used in an industrial environment. The owner of the machine is therefore subject to the obligations as stipulated by the Occupational Health and Safety Act.

In addition to the safety information in this manual, the country-specific safety, accident prevention guidelines and environmental protection regulations, applicable at the site of implementation of the machine must be adhered to.

Furthermore, the owner is responsible for making sure that the machine is always in perfect technical condition. Therefore, the following applies:

- The owner must ensure that the maintenance intervals described in this operating manual are adhered to.
- The owner must have all safety equipment checked regularly for functionality and completeness.

3.2 Intended use

The release agent spray gun TFP-1 is designed for the fine atomisation of release agents but is also suitable for processing a wide range of other media.

The intended use also includes the compliance with all the information in this operating manual.

3.3 Predictable misuse

Any use beyond the intended use or any other use constitutes misuse.

- Only carry out the installation, commissioning, and use in accordance with the steps described in these operating instructions.
- Ensure that the utilised hose lines fulfil the requirements with respect to pressure, chemical, and mechanical loads.
- Always observe the applicable country-specific safety, accident prevention, occupational safety, and environmental protection regulations for the area of use for the hand-held spray gun.
- The chemical resistance of the materials which we use cannot always be assessed with authority due to the large number of fluids, concentrations, temperatures and impurities used. For this reason, the suitability must be checked because we cannot extend any respective guarantees.
- Only use the manufacturer's OEM parts.
- Only operate the hand-held spray gun in compliance with the values specified in (↺ *Chapter 13 'Technical data' on page 37*).
- Do not use the hand-held spray gun in the food and pharmaceutical industries.
- When using solvent-containing paints, avoid open flames, red-hot parts, and equipment, tools, and parts that can create flammable sparks in the work area.
- When using solvent-containing paints, provide a sufficient fresh air supply.
- Never point the hand-held spray gun at living beings.

- The conformity of the product is voided in case of structural modifications of the hand-held spray gun.
- Take preventative measures against unintended operation or triggering of the trigger!

WARNING!

Misuse of the hand-held spray gun can cause dangerous situations.

No claims of any kind can be asserted due to damage resulting from misuse!

3.4 General safety instructions

WARNING!

Risk of death, risk of injury or property damage due to hazardous media!

Potential consequences: The application of hazardous media can lead to death, severe injuries or property damage.

When handling hazardous substances, ensure that the current safety data sheets of the hazardous substance manufacturer are available. The necessary measures can be derived from the content of the safety data sheet. Since the hazardous potential of a material can be reassessed at any time due to new lessons learned, the safety data sheet must be checked regularly and replaced if necessary.

The system owner is responsible for the presence and the up-to-date status of the safety data sheet and the associated generation of the risk assessment of the effected workstations.

DANGER!

Risk of fatal injury due to toxic, flammable or explosive material

High risk potential during the storage and transport of the hand-held spray gun still containing toxic, flammable or explosive material or cleaning products.

– Properly clean the hand-held spray gun before storage and transport so that there is no toxic, flammable or explosive products inside.

CAUTION!

Risk of injury through compressed air!

Uncontrolled leaks of compressed air can lead to serious injuries!

– Prior to any work on the device, all compressed-air lines must be closed and bleed if necessary.

WARNING!

Vibrations caused by pulsation-generating compressor unit!

Vibrations caused by pulsation-generating compressor units (pumps, compressors) can be transferred to the spray gun via hose lines and lead to neurological or vascular disorders.

– Take breaks between spray processes.
– Use pulsation-dampening devices (pressure compensation container, etc.).

CAUTION!

Risk of injury through tripping over hoses and cables!

Hoses and cables are slipping and tripping hazards. A fall can cause injuries.

– Always pay attention to hoses and cables in the working environment.
– If possible, run hoses and cables outside of the work area.

Operation in indoor and outdoor areas!

During the operation in indoor and outdoor areas use suitable measures to protect the device against ambient conditions such as:

– *Moisture*
– *UV radiation*
– *Frost, etc.*

3.5 Residual risks

The hand-held spray gun made by Krautzberger GmbH has been manufactured based on state-of-the-art technology and generally accepted technical safety regulations.

Nonetheless, its use can pose a threat to the life or health of users or third parties, damage the hand-held spray gun itself or cause other property damage.

- The hand-held spray gun must only be used as intended.
- The hand-held spray gun may only be operated in a defect-free condition.
- Any faults impacting the safety must be remedied immediately.

3.6 Course of action in an emergency

In principle, the applicable national, regional and internal company regulations concerning the course of action in case of an emergency must be adhered to and if necessary respective safety measures must be taken on the system owner's side.

4 Transport, storage, and packaging

4.1 Transport

- The hand-held spray gun is protected by cardboard packaging.
- The cardboard packaging can be reused for storage.

4.2 Storage

Store the hand-held spray gun under the following conditions:

- Store the hand-held spray gun in the original packaging.
- Do not store outside.
- Store in a dry and dust-free environment.
- Keep away from any aggressive media.
- Protect from UV radiation.
- Avoid mechanical shocks.
- Storage temperature: 15 to 40 °C.
- Relative atmospheric humidity: max. 60%.

4.3 Packaging

The hand-held spray gun is packaged in accordance with the anticipated transport conditions and the packaging needs to protect it against transport damage, corrosion, and other damage.

- Remove packaging material.
- Remove potentially present transport safety restraints.

5 Overview

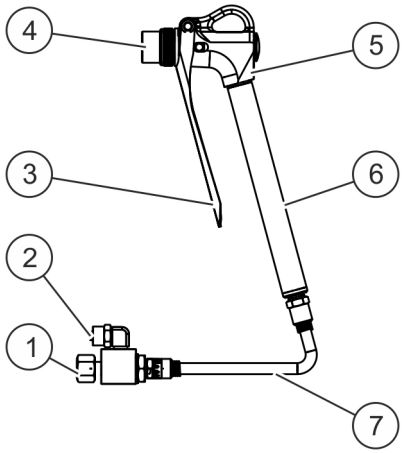


Fig. 1: Overview

1 Material connection
2 Connection for atomiser air
3 Pull lever
4 Material outlet
5 Main element
6 Tube handle
7 Air hose

6 Installation

6.1 Safety

Personnel:

- Specialised personnel

Protective equipment:

The selection of the protective equipment depends on the installation conditions on site. Always observe the applicable country-specific safety, accident prevention, occupational safety, and environmental protection regulations for the proper selection of the protective equipment.

WARNING!

Risk of injury due to improper installation!

Improper installation may cause serious personal injury or material damage.

Note:

- Ensure ample of space for the installation prior to starting any work.
- Carefully handle open, sharp-edged components.
- Maintain order and cleanliness at the installation site. Components that are loosely stacked or are scattered around can cause accidents.
- Assemble components properly. Adhere to specified screw tightening torque.
- Secure components against tipping or falling.
- Ensure that the utilised hose lines meet the requirements for pressure, chemical and mechanical loads. At the same time, adhere to the spray media manufacturer's specifications in the safety data sheet.

6.2 General installation information

Adhere to the following general information for installation:

- Only carry out installation and commissioning in accordance with the steps described in this operating manual.
- Ensure that the utilised hose lines fulfil the requirements with respect to pressure, chemical, and mechanical loads.
- Mixing up the air or material connections can lead to permanent damage to the hand-held spray gun.
- Reduce the supply air through the installation of a pressure regulator to a maximum of 12 bar.
- Make sure that the connected compressed air is oil-free and free from solid matter.
- Operate the hand-held spray gun with processed, dried compressed air (air quality pursuant to DIN ISO 8573-1: quality class 4).
- Never point the compressed air at living beings.

6.3 Connections of the hand-held spray gun

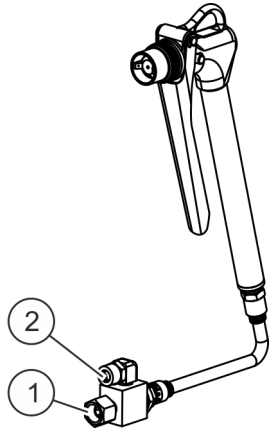


Fig. 2: Connections Dekor

1.

NOTICE!

Confusion of connections

Mixing up the air or material connections can lead to permanent damage to the hand-held spray gun.

Connect the compressed air supply to the compressed air connection (Fig. 2/2).

2. Connect the pressure hose to the material connection (Fig. 2/1).

7 Operation

7.1 Safety

Personnel:

- User
- Specialised personnel

Protective equipment:

The selection of the protective equipment depends on the medium used by the system owner. The information provided by the medium manufacturer indicated on the safety data sheet must be adhered to in order to ensure the proper selection of protective equipment.

WARNING!

Risk of death, risk of injury or property damage due to hazardous media!

Potential consequences: The application of hazardous media can lead to death, severe injuries or property damage.

When handling hazardous substances, ensure that the current safety data sheets of the hazardous substance manufacturer are available. The necessary measures can be derived from the content of the safety data sheet. Since the hazardous potential of a material can be reassessed at any time due to lessons learned, the safety data sheet must be checked regularly and replaced if necessary.

The system owner is responsible for the presence and the up-to-date status of the safety data sheet and the associated generation of the risk assessment of the effected workstations.

CAUTION!

Risk of injury caused by compressed air!

Uncontrolled leaks of compressed air can lead to serious injuries.

Note:

– Prior to any work on the device/machine, all compressed-air lines must be closed and disconnected.
– Never point compressed air at living beings.

WARNING!

Hearing damage due to excessive noise exposure!

Depending on the operating conditions, the sound pressure of the device/machine may cause hearing damage.

Note:

– Take suitable action to reduce the impact of the existing sound pressure level. The owner is responsible for the type and implementation of suitable measures, which may depend on the local conditions.

WARNING!

Vibrations caused by pulsation-generating compressor units!

Vibrations caused by pulsation-generating compressor units (pumps, compressors) can be transferred to the spray gun via hose lines and lead to neurological or vascular disorders.

Note:

– Take breaks between spray processes.
– Use pulsation-dampening devices (pressure compensation container, etc.).

WARNING!

Risk of fatal injury, risk of injury or property damage due to damaged or disconnected lines!

Damaged or disconnected lines can cause death, serious injuries or property damage due to whip-like movements and the spraying of fluids.

Therefore:

– Check the material pressure lines for damage and a tight fit prior to every work process.

7.2 General information about initial start-up/commissioning

Adhere to the following general initial start-up/commissioning information:

- Only carry out initial start-up and commissioning of the hand-held spray gun in accordance with the steps described in these operating instructions.
- Always observe the applicable country-specific safety, accident prevention, occupational safety, and environmental protection regulations for the area of use for the hand-held spray gun.
- Adhere to the safety data sheets of the spray media manufacturer.
- Only operate the hand-held spray gun in compliance with the values specified in (*Chapter 13 'Technical data' on page 37*).
- Only use accessories from Krautzberger GmbH!

- Only use sufficiently sturdy hoses! Check and, if necessary, replace older hoses before starting up the hand-held spray gun.
- Only use hoses that match the hose connections and check them for their proper seat and ensure that they are leak-proof.
- It is recommended to flush the hand-held spray gun prior to commissioning using a suitable cleaning product (spraying process with cleaning product, until it runs clear when exiting).
- To ensure that there are no particles clogging the nozzles, we recommend cleaning the coating material with a material filter positioned in front of the material connection.
- Never point the compressed air or the spray jet at living beings.

Among other factors, the spray pattern depends on the viscosity of the coating material. It can be modified through the material pressure. If the optimal application cannot be achieved through material pressure changes, it is recommended to try again with a different material nozzle.

7.3 Operation

1. Switch on the compressed air supply.
2. Where applicable, switch on material pressure pump or pressurised material container for spray media.
3. Point the hand-held spray gun at a test surface.

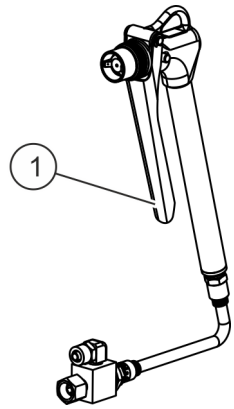


Fig. 3: Pull lever

4. **WARNING!**

   Danger of damage to hearing due to the noise of the hand-held spray gun.

   Start spraying process by activating the trigger (Fig. 3/1).
5. Assess the spray pattern.
6. Close the material supply and switch off the material pressure pump if necessary.
7. Release the residual energy by activating the trigger.
8. Replace the material nozzle (*Chapter 8.5 'Changing the material nozzle and the air nozzle' on page 30*).
9. Check for leaks.
10. Switch on material pressure pump and open material supply if necessary.
11. Guide the spray jet in even movements across the workpiece.
12. End the spraying process by releasing the trigger.
13. Close the material supply and switch off the material pressure pump if necessary.
14. Release the residual energy by activating the trigger.

7.4 Adjusting the spray pattern

A wide range of air and material nozzles in various sizes are available to perform numerous differing coating tasks. There are four different families for the nozzles:

Nozzle type	Description	Remark
Round jet	cone-shaped jet in front of the nozzle	
Flat jet	width-adjustable jet for flat-shaped application	
Rotary jet	a rotary pulse produces a highly "swirled" spray jet	suitable for difficult workpiece geometries (angles, etc.)
Full-cone rotary jet	a rotary pulse produces a "swirled" spray jet	suitable for difficult workpiece geometries (undercuts, etc.)

Option for spray pattern adjustment

Too-high air pressure causes unnecessarily high air consumption and a strong atomisation of the coating material. It is recommended that you first adjust the spray pattern by varying the air and material pressure. If you cannot achieve satisfactory results this way, you should experiment with other nozzle sizes.

7.5 Shutting down

7.5.1 Temporary shut-down

1. Disrupt the spraying process by releasing the trigger.
2. Close the material supply and switch off the material pressure pump if necessary.
3. Release the residual energy by activating the trigger.

7.5.2 Long-term shut-down

1. Disrupt the spraying process by releasing the trigger.
2. Close the material supply and switch off the material pressure pump if necessary.
3. Release the residual energy by activating the trigger.
4. Clean the hand-held spray gun (*Chapter 8.3 'Cleaning the hand-held spray gun' on page 27*).
5. **DANGER!**

   Risk of fatal injury due to toxic, flammable or explosive material

   High risk potential during the storage and transport of the hand-held spray gun still containing toxic, flammable or explosive material or cleaning products.

   – Properly clean the hand-held spray gun before storage and transport so that there is no toxic, flammable or explosive products inside.

   Clean the parts with adhering residual material in an appropriate manner.

8 Maintenance

8.1 Safety

Personnel:

- User
- Specialised personnel

Protective equipment:

The selection of the protective equipment depends on the medium used by the system owner. The information provided by the medium manufacturer indicated on the safety data sheet must be adhered to in order to ensure the proper selection of protective equipment.

WARNING!

Risk of injury through the use of incorrect spare parts!

The use of incorrect or defective spare parts can cause hazards for the personnel as well as damage, malfunctions or complete failure.

Note:

– Only use OEM parts from Krautzberger or Krautzberger-approved spare parts.
– If in doubt, always contact Krautzberger Customer Care.

CAUTION!

Risk of injury caused by compressed air!

Uncontrolled leaks of compressed air can lead to serious injuries.

Note:

– Prior to any work on the device/machine, all compressed-air lines must be closed and disconnected.
– Never point compressed air at living beings.

CAUTION!

Risk of injury due to sharp edges!

Sharp edges and pointed corners can cause abrasions and cuts on the skin.

Note:

– Proceed cautiously when working on or near sharp edges and pointed corners.
– Wear protective gloves, if in doubt.

8.2 Maintenance schedule

The following sections describe the maintenance work that is required for optimal and defect-free operation of the device. Check the wearing parts such as seals and nozzles at regular intervals. The level of wear depends on the abrasiveness of the spray medium used. Escaping air and spray medium as well as the deterioration of the spray pattern are signs that parts are worn. Contact Krautzberger Customer Care should you have any questions about maintenance work and maintenance intervals.

Interval	Maintenance work	Personnel
after each use	Clean the hand-held spray gun (*Chapter 8.3 'Cleaning the hand-held spray gun' on page 27*).	User
if needed	Change the material nozzle and air nozzle (*Chapter 8.5 'Changing the material nozzle and the air nozzle' on page 30*).	Qualified personnel
	Change the material needle (*Chapter 8.4 'Changing the material needle' on page 28*).	Qualified personnel
	Change the needle seal (*Chapter 8.6 'Changing the needle seal' on page 31*).	Qualified personnel
at regular intervals	Grease the sliding parts (*Chapter 8.4 'Changing the material needle' on page 28*) and (*Chapter 8.6 'Changing the needle seal' on page 31*).	Qualified personnel

General Information about the replacement of parts

Slightly grease the sliding parts with special Krautzberger grease.

The special grease can be purchased from Krautzberger GmbH (contact data see last page).

- Clean the dirty parts, replace non-functioning parts.
- Ensure the correct fit of seals.
- After the assembly with the needle pusher and the needle bolt, the material needle should protrude from the needle pusher at a length of 49mm as exactly as possible. Exceeding the length by up to 0.1 mm is possible. A shorter length leads to an insufficient valve seat.
- Occasionally check the moving parts for free range of motion and relubricate when necessary.

8.3 Cleaning the hand-held spray gun

WARNING!

Risk of injury due to improper cleaning!

– Adhere to the safety data sheets of the cleaning product manufacturer.
– Do not fully immerse the hand-held spray gun in a cleaning product.

1. Disrupt the spraying process by releasing the trigger.
2. Close the material supply and switch off the material pressure pump if necessary.
3. Release the residual energy by activating the trigger.
4. Establish the cleaning product supply at the material connection.
5. If necessary, switch on the material pressure pump for the cleaning medium.
6.

WARNING!

Danger of damage to hearing due to the noise of the hand-held spray gun.

Start the spraying process by actuating the trigger.

7. Spray until the cleaning product runs clear.
8. End the spraying process by releasing the trigger.
9. End the supply of the cleaning product, switch off the material pressure pump if necessary.
10. Release the residual energy by activating the trigger and blow out the cleaning material residue.
11. Take preventative measures against unintended operation or triggering of the trigger by flipping the locking lever.
12. Clean the outside of the hand-held spray gun with a cloth soaked in cleaning product.

8.4 Changing the material needle

1. Interrupt operation (*Chapter 7.5 'Shutting down' on page 23*).
2. If necessary, secure material pressure pump or pressurised material container for the spray media against restart.
3. Interrupt the external material supply.

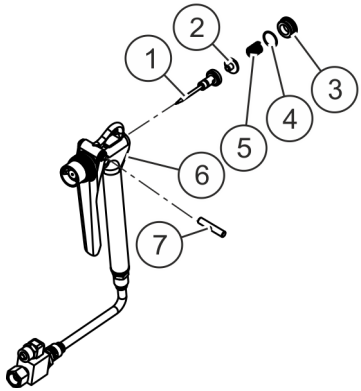


Fig. 4: Removing the material needle

4. Unscrew the cover (Fig. 43).
5. Remove the seal (Fig. 4/4) and pressure spring (Fig. 4/5).
6. Take hold of the screw (Fig. 4/2) using suitable pliers and remove the material needle (Fig. 4/1) with guide and seal.
7. Remove the actuator (Fig. 4/7) from the main element (Fig. 4/6).

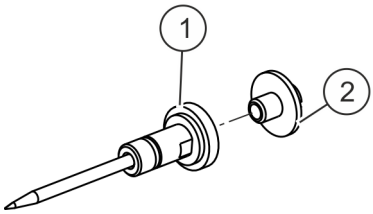


Fig. 5: Removing the screw from the guide

8. Unscrew the screw (Fig. 5/2) from the guide (Fig. 5/1).

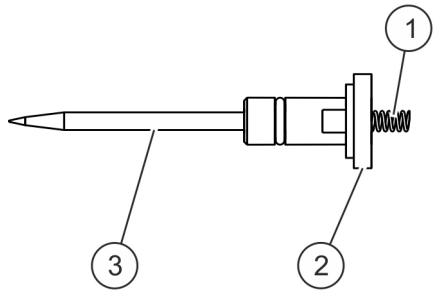


Fig. 6: Removing the seal and spring

9.

CAUTION!

Risk of injury due to material needles!

Remove the seal (Fig. 6/2), spring (Fig. 6/1) and material needle (Fig. 6/3).

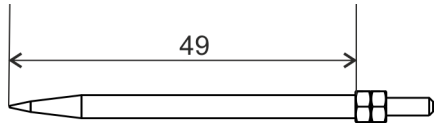


Fig. 7: Setting dimension

10. Check that the new material needle is set to the correct setting dimension (49mm).

11.

WARNING!

Risk of injury through the use of incorrect spare parts!

Lightly grease spring. We recommend Krautzberger special grease (contact data see last page).

Install the new material needle together with the seal, guide, spring and screw and re-insert it into the main element.

12. Insert the actuator back into the main element.

13.

Slightly grease the sliding parts. We recommend Krautzberger special grease (contact data see last page).

Re-insert the seal and the pressure spring.

14. Tighten the cover again.

8.5 Changing the material nozzle and the air nozzle

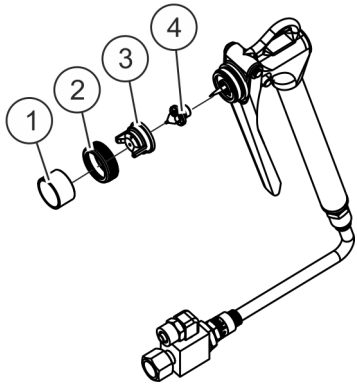


Fig. 8: Replacing the material nozzle

1. Remove the protective cap (Fig. 8/1).

2. Unscrew the cap nut (Fig. 8/2).

3. Remove the air nozzle (Fig. 8/3) and material nozzle (Fig. 8/4) or unscrew them.

4.

WARNING!

Risk of injury through the use of incorrect spare parts!

Insert/screw in the new air nozzle and material nozzle.

5. Tighten the cap nut again.

6. Re-attach the protective cap.

8.6 Changing the needle seal

1. Remove the material needle (*Chapter 8.4 'Changing the material needle' on page 28*).
2. Remove the material nozzle and the air nozzle (*Chapter 8.5 'Changing the material nozzle and the air nozzle' on page 30*).

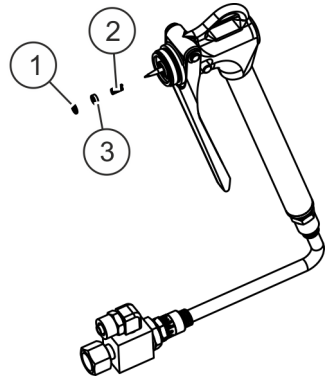


Fig. 9: Changing the needle seal

3. Carefully pull the spring (Fig. 9/2), disc (Fig. 9/1) and needle seal out of the main element using a wire hook.
4. **WARNING!**

   Risk of injury through the use of incorrect spare parts!

   Slightly grease the sliding parts. We recommend Krautzberger special grease (contact data see last page).

   Carefully re-insert the new needle seal into the main element with the spring and disc. In doing so, pay attention to the correct installation location.

9 Troubleshooting

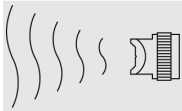
Personnel:

- Qualified personnel

If the fault is not included in the following tables or if it cannot be eliminated with the measures described, contact Krautzberger Customer Care.

Troubleshooting table

Spray pattern	Error	Cause	Remedy
	Normal flat jet spray pattern		
	Spray pattern too heavy towards the top and towards the bottom	■ Dirty air nozzle ■ Dirty material nozzle	Clean nozzles (*Chapter 8.3 'Cleaning the hand-held spray gun' on page 27*).
	Spray pattern concentrated on the left or right side	■ Dirty air nozzle ■ Dirty material nozzle	Clean nozzles (*Chapter 8.3 'Cleaning the hand-held spray gun' on page 27*).
	Heavy application in the centre of the spray pattern	■ Too much material	■ Reduce the material supply.
		■ Material too thick	■ Thin the material.
	Split spray pattern	■ Insufficient material	■ Increase the material supply.
		■ Flat jet air pressure too high	■ Reduce the flat jet air pressure.

Spray pattern	Error	Cause	Remedy
	Spray pattern too thin	■ Cap nut loose	■ Tighten the cap nut.
	Material jet comes out in spurts or rapid bursts	■ Insufficient material supply	■ Increase the material supply.
		■ Blocked material path	■ Clean (↳ *Chapter 8.3 'Cleaning the hand-held spray gun' on page 27*).
		■ Loose or damaged material nozzle	■ Tighten or replace (↳ *Chapter 8.5 'Changing the material nozzle and the air nozzle' on page 30*).
		■ Worn needle seal	■ Replace the needle seal (↳ *Chapter 8.6 'Changing the needle seal' on page 31*).
	Leakage on the clamping screw	■ Needle seal defective	■ Replace the needle seal (↳ *Chapter 8.6 'Changing the needle seal' on page 31*).
	Material nozzle drips	■ Worn or damaged material needle	■ Change the material needle (↳ *Chapter 8.4 'Changing the material needle' on page 28*)
		■ Dirty or damaged material nozzle	■ Clean (↳ *Chapter 8.3 'Cleaning the hand-held spray gun' on page 27*) or replace (↳ *Chapter 8.5 'Changing the material nozzle and the air nozzle' on page 30*) the material nozzle.

9.1 Customer Care

Krautzberger GmbH

Customer service

Stockbornstr. 13

65343 Eltville am Rhein

+49 6123 - 698151

customercare@krautzberger.com

10 Spare parts

– *Only use OEM parts from Krautzberger or Krautzberger-approved spare parts.*
– *In case of questions, always contact our Customer Care department.*

Spare parts order – General

To make spare part ordering easier, please provide the following information:

– *Serial number*
– *Model / product name*
– *Designation*
– *Item number according to spare parts list*
– *Quantity*
– *Desired shipping method (post, freight, sea, air, express)*
– *Delivery address*

A complete spare part overview is available on the website of Krautzberger GmbH:

www.krautzberger.de

11 Accessories

A wide range of accessories is available for the hand-held spray gun. For further information, visit us on the Internet (www.krautzberger.com) or contact your Krautzberger specialist dealer, consultant or our office staff.

12 Disassembly and disposal

12.1 Safety

Personnel:

- Qualified personnel

Protective equipment:

The selection of the protective equipment depends on the installation conditions on site and the medium utilized by the system owner. The applicable country-specific safety, accident prevention, occupational safety, and environmental protection regulations must adhered to for the proper selection of the protective equipment and the information given by the spray media manufacturer on the safety data sheet must be taken into consideration.

WARNING!

Risk of injury due to improper disassembly!

12.2 Disassembly

Prior to starting the disassembly:

- Switch off the device and secure it against restart.
- Physically disconnect the entire power supply from the device, and discharge any energy stored in the machine.
- Remove and dispose of operating and auxiliary material as well as remaining processing materials in an environmentally friendly manner.

Afterwards, properly clean components and modules and take them apart in compliance with applicable local occupational health & safety regulations as well as environmental protection regulations.

12.3 Disposal

If no return or disposal agreement has been made, recycle the dismantled parts:

- Scrap metals.
- Recycle plastic components.
- Sort remaining components based on the respective material and dispose of them accordingly.
- Properly dispose of potential spray fluid residue separately from the device.

If in doubt, obtain information about environmentally-appropriate disposal with the local municipalities or specialised disposal companies.

13 Technical data

13.1 Dimensions

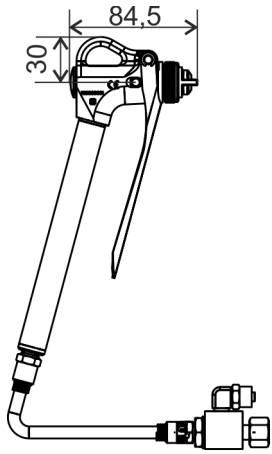


Fig. 10: Dimensions

13.2 Weight

Specification	Value	Unit
Weight (without double hose)	approx. 350	g

13.3 General specifications

Specification	Value	Unit
Material supply	Material pressure pump	-
Max. material pressure	6	bar
Max. atomiser air pressure	12	bar
Available nozzle sizes	0.3 - 1.8	mm
Jet shape	Round jet	-
Noise emission	73 to 96	dB (A)
Vibration	< 2.5	m/s^2
Angle of spray jet in front of nozzle	up to approx. 180	°
Reach distance of the spray jet (depending on nozzles and coating material)	up to 3	m
Maximum material temperature (8 hours of continuous use)	43	°C
Maximum air temperature	43	°C
Max. diameter of the material outlet opening	2.0	mm

Specification	Value	Unit
Material connection	G 1/4i	"
Connection for atomiser air (spout for hose)	PK6/8	"

14 Declaration of conformity

Krautzberger

EC-/EU- Declaration of Conformity
under the EC-Treaty / EU Constitution

The manufacturer
Krautzberger GmbH, Stockbornstr. 13, 65343 Eltville, Deutschland

hereby declares that the following product

Product name:	Release agent spray gun
Fabrikat:	TFP-1
Article number::	200-0261
Marking to Atex:	none

the relevant harmonisation legislation of the Union until 19 April 2016, as applicable and regulations applicable from April 20, 2016 and the other applied directives / standards (following) - including their changes applying at the time of the explanation – corresponds.

Following guidelines were applied:

2006/42/EG

The following national and international standards and specifications have been applied:

EN 1953:2013
EN ISO 12100-1:2003/A1:2009
EN ISO 14121-1:2007

Name and address of the person who is authorised to put together the technical documents

Andreas Lotz
c/o Krautzberger GmbH
Stockbornstr. 13
65343 Eltville
Deutschland

Place: Eltville
Date: 21.11.2017

Jörg Blumrich(Head of Design/Development)

Seite **1** von **1**

Fig. 11: Declaration of conformity

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ

Заявитель ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ "ШМИДТ И ШМИДТ". Место нахождения и адрес места осуществления деятельности 625005, Россия, Тюменская область, город Тюмень, улица Заозерная, дом 100.
Основной государственный регистрационный номер 1157232040129.
Телефон +74996774922 Адрес электронной почты: kontakt@schmidt-exportru.
в лице Генерального директора Шмидта Андрея Сергеевича

заявляет, что Оборудование технологическое и аппаратура для нанесения лакокрасочных покрытий на изделия машиностроения распылители, типы: HP 30, HP 30 HVLP, HS 25, HS 30, HS 30 HVLP, HS 30 v, Mignon 3 HVLP, Mignon 3 HVLP, Mignon 3, Mignon 4P, Mignon 4P HVLP, Mignon 4S, Mignon 4S HVLP, Mignon 4v, Perfekt 4, Perfekt 4 mit, TFP 1.

Изготовитель Krautzberger GmbH. Место нахождения и адрес места осуществления деятельности по изготовлению продукции: Германия, Stockbornstraße 3, 65343 Eltville am Rhein.
Продукция изготовлена в соответствии с Директивой 2006/42/ЕС «О машинах и механизмах».
Код (коды) ТН ВЭД ЕАЭС: 8424200000
Серийный выпуск.

соответствует требованиям
Технического регламента Таможенного союза ТР ТС 010/2011 "О безопасности машин и оборудования"

Декларация о соответствии принята на основании
протокола № 00236-Т-19 от 13.12.2019 года, выданного Испытательным центром «КЦМТ», свидетельство о подтверждении компетентности испытательной лаборатории (центра) РОСС RU.1902.05ИЦ07.
Схема декларирования соответствия 1д.

Дополнительная информация
раздел 2 ГОСТ 12.2.003-91 "Система стандартов безопасности труда. Оборудование производственное. Общие требования безопасности" Условия хранения продукции в соответствии с ГОСТ 15150-69. Срок хранения (службы) и (или) ресурс продукции указаны в прилагаемой к продукции товаросопроводительной и/или эксплуатационной документации.

Декларация о соответствии действительна с даты регистрации по 15.12.2024 включительно.

подпись М.П. Шмидт Андрей Сергеевич
(Ф.И.О. заявителя)

Регистрационный номер декларации о соответствии ЕАЭС N RU Д-DE.НВ35.В.00152/19
Дата регистрации декларации о соответствии 16.12.2019

Fig. 12: Declaration of EAC

15 Notes

16 Index

Krautzberger GmbH
Stockbornstrasse 13
D-65343 Eltville am Rhein, Germany

Hotline: +49 (0) 6123 698-222
Zentrale: +49 (0) 6123 698-0
Fax: +49 (0) 6123 698-200
Email: mail@krautzberger.com
Internet: www.krautzberger.com

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