# Installation Instructions

Original language: German

# Suttner Spray Gun (All versions)



#### www.rm-suttner.com

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The technical limits of the product can be found on the type plate or data sheet. The user must wear appropriate protective clothing, for example, in the form of gloves, safety shoes and goggles. The local safety regulations currently in force should always be observed.

Please read these Installation Instructions carefully before using the equipment! Keep the Installation Instructions in a safe place for future use or for the next user! These Installation Instructions were prepared with great care. However, SUTTNER GmbH cannot be held responsible for any possible errors in the Installation Instructions or for any consequences arising thereof!

## Intended use

The spray gun is designed for dispensing pressurised fluids from high-pressure washers. All safety regulations and rules for high-pressure washers apply, e.g. DIN EN 60335-79-2 and DIN EN 1829-1. The spray gun must only be used with Group II fluids as per 2014/68/EU. This can include for instance water and commercially available cleaning or disinfection agents. For further details, please refer to Guideline 67/548/EEC.

Operate the spray gun only within the pressure, flow rate and temperature ranges indicated. Before starting work, check the values on the highpressure generator and adjust these if necessary.

# A DANGER

# The processing of flammable, explosive, corrosive or toxic substances is prohibited!

The spray gun must not be used with abrasive substances.

The spray gun must only be used in a technically perfect condition, unmodified in any way, for the purpose intended, in the awareness of safety requirements and potential hazards in compliance with these Installation Instructions. Only adults trained in handling high-pressure washers may use the spray gun.

To avoid damaging the spray gun, install a fine filter with a recommended mesh size of 50 µm into the water inlet to the high-pressure washer.

Please also comply with the operating instructions for equipment and accessories connected to the spray gun and with the applicable regulations for cleaning agents.

# Normative references

- The product is classed as a pressure-maintaining component within the terms of Pressure Equipment Directive 2014/68/EU. Due to the operating parameters, it comes under the scope of Article 4 / Paragraph 3 of this guideline ("good engineering practice") and therefore no Declaration of Conformity and CE marking are allowed!
- The product must not be installed in equipment complying with the Pressure Equipment Directive 2014/68/EU.
- The component is a standard component within the terms of Machinery Directive 2006/42/EC!

# Symbols and their meaning



### Hazard!

If these instructions are not followed, there is a danger of physical injury, danger to life and material damage!



Incorrect operation may lead to severe injury. Read the Installation Instructions before using the equipment.

Wear safety gloves!

Wear protective goggles!

### Risk of injury due to high pressure!

Do not aim the outlet nozzle at humans or animals. Do not spray any objects containing harmful substances, which conduct electricity or which are fragile!

Description of imminent hazard and failure to avoid hazard will result death

Description of hazard and possible resulting injuries or death.

Description of hazard that could result in minor or moderate injury.

# For your safety

This Suttner product is state of the art and complies with generally recognised health and safety regulations. Due to the high pressures and temperatures nonetheless there is the danger of material damage and injury for users and other persons. Please comply with these Installation Instructions at all times and the relevant regulations for liquid jet sprayers.

For details regarding personal protective equipment, refer to the German accident prevention regulations "Personal protective equipment" (VBG101, at present draft). Personal protective equipment includes for example overalls, head protection, easy-grip protective gloves and non-slip boots, metatarsal foot protection, respiratory protection, ear protection, eye or face protection.

Do not use the equipment if persons without protective clothing are within range.



# Risk of injury due to emerging spray medium!

- Before starting work, check the high-pressure system (spray equipment, hoses, screw connectors, etc.) for signs of leakage and damage.
- Cease operation immediately if any leakage or malfunctions occur.
- The spray gun trigger lever must not be jammed in the open position or prevented from closing in any other manner.
- Do not aim the steam nozzle at yourself or other living creatures, not even to clean clothing or footwear.
- Never place your hands in the way of the exiting high-pressure jet.
- If you are using cleaning agents, please read and observe the safety datasheets provided by the manufacturer of the cleaning agents.



CAUTION

## Risk of burning or scalding due to hot media!

If the water temperature exceeds 45°C, the user must wear suitable protective clothing such as gloves, shoes and safety goggles.

## Risk of falling due to exiting water jet!

- Due to the high pressure of the exiting jet, you will experience a recoil force.
- Please ensure that you stand firmly and hold the spray gun or lance tight using both hands.
- Do not use the spray equipment when on slippery floors or ladders.
- Secure yourself on scaffolding or staging against falling.
- Remember that the use of angled lances produces torgue forces. Make sure that the torgue force does not exceed 20 Nm.



**Risk of personal injury and material damage due to displaced particles!** During high-pressure cleaning, particles of dirt and other loose particles are displaced from the surface being cleaned. Due to the energy of the high-pressure jet, these particles are vastly accelerated and may lead to material damage and personal injury.



# Risk of injury due to high pressure!

Do not clean any objects containing harmful substances (e.g. asbestos), which conduct electricity or which are fragile (e.g. glass). Damage may occur when spraying fragile surfaces (e.g. car tires, painted surfaces). For fragile surfaces, do not use spot jet nozzles and keep a minimum distance. This minimum distance is dependent on the pressure and surface to be cleaned.

# Assembly



#### Risk of injury!

Please note that spot jet nozzles should only be used in conjunction with a lance which is at least 75 cm long and which offers sufficient space for your second hand! If the high-pressure system has been used with hot water, allow the equipment to cool down to below 45°C due to

If the high-pressure system has been used with hot water, allow the equipment to cool down to below 45°C due to the risk of scalding or burning before starting assembly and maintenance work!

- Switch the high-pressure generator off before carrying out assembly work on the high-pressure system.
- Secure the high-pressure generator against being unintentionally switched on.
- Turn the water supply off.
- Ensure that system sections and lines to be opened are not under pressure.
- Seal the screw connectors in accordance with your intended use with an appropriate sealant such as Teflon sealing tape or a liquid sealant (see R+M Catalogue, Chapter 06, Adhesives and sealing materials).
- When assembling the lance and hose, secure the spray gun on the hexagon to prevent it turning and tighten the connectors to 25 Nm.
- · Connect the high-pressure hose from the high-pressure generator to the spray gun inlet.
- if necessary, mount suitable accessories on the outlet side.

#### Modification

No modifications of any kind are to be made to the spray gun!

# Operation

After you have read the safety instructions, the spray gun is remarkably easy to use:

- Hold the spray gun firmly and securely in your hand by the grip surfaces provided for this purpose and ensure that you have a firm footing.
- To activate the spray gun, flip in the safety latch.
- Press the trigger lever to open the valve in the spray gun.
- Release the trigger lever to close the valve in the spray gun. The spray gun remains under pressure.
- At the end of work: Switch the high-pressure generator off. Actuate the spray gun briefly to release any residual pressure.
- To prevent the valve in the spray gun from inadvertently opening again, flip out the safety latch.
- Do not leave the spray gun unattended when the high-pressure generator is switched on.

#### Swivel joint option

To ensure that the high-pressure hose does not twist, a swivel joint can be used to connect the high-pressure hose and spray gun. By using a swivel joint, the spray gun can easily rotate in relation to the hose when depressurised. As the pressure increases, the swivel joint becomes more difficult to rotate.

## KW coupling option

The optional coupling on the spray gun outlet is designed for quick mounting of lances, extensions, foam nozzles.

How to use the coupling:

- Insert the plug into the coupling (spray gun outlet)
- Pull back coupling sleeve
- Push the plug into the coupling up to the stop
- Release the coupling sleeve and engage the plug
- Check by pulling whether the plug is completely engaged in the coupling (the accessory must not come loose from the coupling)



Only use original Suttner accessories. Before assembly, check the coupling and plug for contamination and clean if necessary. Defective plugs must not be used Before each use, check that the accessory is firmly engaged in the coupling!

## **Option Frost Protection**

The optional frost protection valve can protect your high-pressure gun from freezing in the winter when used with a low-pressure water circuit that is also connected to the spray.

The low-pressure water circuit must be installed by the system operator. The low-pressure water should be filtered with a filter size of 50 µm to prevent damage to the valve. The system pressure in the low-pressure circuit should not exceed 4.5 bar.

#### Function

During high-pressure operation, the spray gun works like a normal high-pressure gun, i.e. the gun is fully closed when the trigger level is not actuated. High-pressure mode requires at least 10 bar pressure and a flow rate of >2.5 l/min.

In frost protection mode, low-pressure water is constantly dispensed from the outlet of the spray gun. The valve is open in spite of the trigger lever not being actuated. The permanently flowing water prevents the spray gun from freezing.



In frost protection mode, make sure that the water being dispensed from the outlet is suitably collected!

## **Option Weep**

This spray gun is equipped with a special frost protection function (weep). A special modification of the seal seat ensures that water flows permanently through the spray gun. In order to guarantee that the frost protection function works, the gun must be connected to a low-pressure water circuit when it is not used in high-pressure mode.

The low-pressure water circuit must be installed by the system operator. The low-pressure water should be filtered with a filter size of 50 µm to prevent damage to the valve. The system pressure in the low-pressure circuit should not exceed 4.5 bar.

# CAUTION Risk of injury!

- In frost protection mode (weep), water is constantly dispensed from the outlet of the spray gun. The permanently flowing water prevents the spray gun from freezing.
- Due to the weep function, water is always flowing through the valve in high-pressure mode too, without the trigger level having to be actuated!
- In frost protection mode, make sure that the water being dispensed from the outlet is suitably collected!

#### Transportation and storage

Please ensure that the spray gun is cleaned and protected from contamination during transportation and storage. Protect the spray gun against frost. The effect of frost can damage the spray gun so badly that it no longer works perfectly.

# Cleaning

- Clean the device prior to longer periods of inactivity. To clean the exterior, use a lint-free cleaning cloth and do not use any aggressive cleaning agents.
- If you are using the spray gun with cleaning or disinfection agents, rinse the gun before and after use and prior to longer periods of inactivity (as from 1 hour). To do so, actuate the spray gun and rinse it thoroughly with clear water to clean the internal parts of the spray gun.

# Maintenance



Assembly, maintenance and repair work may only be carried out by persons trained in maintenance and repair work on high-pressure systems. Use only spare parts approved by Suttner GmbH. Only use high-pressure components (hoses, connectors, etc.) approved for the respective pressure and temperature range.

- Every year, check that the spray gun is safe to use. Arrange to have any defects immediately rectified by an expert.
- Are the markings and inscriptions legible?
- Does the spray gun close automatically?
- Does the safety latch work?
- Does the spray gun show signs of mechanical damage?

After max. 1000 operating hours or a year or if hot water (exceeding 90°C) and chemicals are used after 500 operating hours or 6 months: Check valve parts (seal seat, O-rings, support rings, ball, piston rod, pressure piece) for damage and if necessary replace completely with a Suttner repair kit.

After max. 3000 operating hours or 3 years or if hot water (exceeding 90°C) and chemicals are used after 1500 operating hours or 18 months: Replace valve parts (seal seat, O-rings, support rings, ball, piston rod, pressure piece) completely with a Suttner repair kit.

## Disposal



#### Please dispose of old equipment in an environmentally friendly manner.

Old equipment contains valuable recyclable materials which should be salvaged for recycling. Please, therefore dispose of old equipment at suitable collection points.

# Manufacturer

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