

# Operating Manual P2-E17

## High Pressure Airless Paint Sprayer



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## 1. About this operating instruction

This operating instruction contains information on the start up, operation and cleaning of the device. Only use the device in accordance with this instruction. The operating instructions are available in German and English.

Keep this operating instruction available at the place of use of the device at all times.

Local guidelines for occupational health and safety as well as accident prevention regulations must be observed at all times.

## 2. General safety instructions

### 2.1. Introduction

The following are general warnings concerning the setup, use, grounding, maintenance, and repair of this equipment.

Additional, more specific warnings can be found in the main body of this manual.

### 2.2. General notes

- Electrical devices and equipment according to the local safety requirements with regard to operating mode and environmental influences.
- Ensure that the device is only operated and repaired by trained personnel.
- Ensure that the floor of the work area is antistatic.
- Ensure that all persons within the work area wear antistatic shoes.
- Provide paint mist extraction equipment on site in accordance with local regulations.
- Use material hoses adapted to the working pressure.
- Use personal protective equipment (respiratory and skin protection, safety goggles).
- Ensure that there are no ignition sources such as open flames, sparks, glowing wires or hot surfaces in the vicinity.
- Never point the spray gun at persons.
- Never reach into the spray jet as the unit develops high pressures.
- Before carrying out any work on the unit, in the event of work interruptions or malfunctions: Disconnect power supply.
- Secure the spray gun against operation.
- Depressurize the spray gun and the equipment.
- When actuating the spray gun, ensure that you are standing securely..
- Only hold the spray gun in one position for a short time.

### **2.3. Grounding the unit**

Due to the flow velocity at spray pressure, electrostatic charges may occur on the unit under certain circumstances. These can cause sparks or flames if discharged.

- Ensure that the device is always grounded via the plug and a properly grounded protective contact socket.
- Ensure that all persons within the work area are grounded, e.g. by wearing antistatic shoes.
- Wear antistatic gloves when spraying for grounding via the handle of the spray gun.
- Do not work with the device in potentially explosive atmospheres.
- Keep the device away from moisture.

### **2.4. Safety measures when using high-pressure hoses**

Make sure that the hose material is chemically resistant to the material being sprayed and is suitable for the pressure generated in the equipment.

The manufacturer, operating overpressure, date of manufacture, among other things, must be recognizable on the high-pressure hose used.

High-pressure hoses may only be laid in suitable locations. Under no circumstances should they be laid in busy areas, on sharp edges, moving parts or hot surfaces.

If the pump draws liquid from a closed container: ensure that air or a suitable gas can enter the container. This will prevent negative pressure and thus further damage.

### **2.5. Hazardous liquids, lacquers and paints**

- During paint preparation, processing and equipment cleaning, observe the processing instructions of the manufacturers of the paints, solvents and cleaners used.
- Take prescribed protective measures, in particular wear safety goggles, protective clothing and gloves and, if necessary, use skin protection cream.
- Use respirator or breathing apparatus.
- When using coating materials with a temperature above 40°C, apply appropriate warning labels.



## 2.6. Incorrect operation of the device

Incorrect use of the unit may result in damage to or malfunction of the unit and serious injury.

Read all operating instructions, signs and labels before operating the device.

- Use the device only for its intended purpose.
- Do not alter or modify this device.
- Inspect the unit daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated components in this system.
- Route high pressure hoses used with this equipment away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not expose the high pressure hose to temperatures above 180°F (82°C) or below -40°F (-4°C).
- Do not lift the pressurized unit.
- Wear ear protection when operating this equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety codes.



## 2.7. Health hazard



- Leaking liquids or toxic vapors can cause serious injury or death to operators. Therefore, avoid any contact with leaking liquids or toxic vapors.
- Also familiarize yourself with the specific hazards of the material being processed before using the equipment.
- Store hazardous liquids (dangerous substances) in approved containers and dispose of them in accordance with the locally applicable guidelines and laws.
- Always wear protective goggles, gloves, appropriate clothing, and a respirator. Adhere to the specifications of the material manufacturers.
- Know the contents of the paints and solvents being sprayed. Read all Material safety Data Sheets (MSDS) and container labels provided with the paints and solvents. Follow the paint and solvent manufacturer's safety instructions



## 2.8. Fire and Explosion Hazard

- Improper grounding, poor ventilation, open flames, or flying sparks create a hazardous work environment and can result in a fire or explosion. Serious injury and death may result.
- Ground the equipment.
- Check with the material manufacturer to determine the conductivity of the material you are using.
- If static sparking occurs while using this equipment, stop using the pump immediately. Do not use the equipment until you identify and correct the problem.
- Provide adequate ventilation to prevent the buildup of flammable vapors from solvents or the material being processed.
- Keep the work area free of contaminants, including solvent, rags, and gasoline.
- Extinguish all open flames or pilot lights in the work area. For units intended for use with only water-based or mineral spirit-type materials with a minimum flash point of 21°C (69.8 F°) Do not spray on clean with liquids having a flash point less than 21°C (69.8 F°).

### 3. Device description

#### 3.1. Introduction

A piston pump consists of an inlet and outlet valve, a reciprocating piston and a housing with piston sleeve. The way it works can be explained as follows:

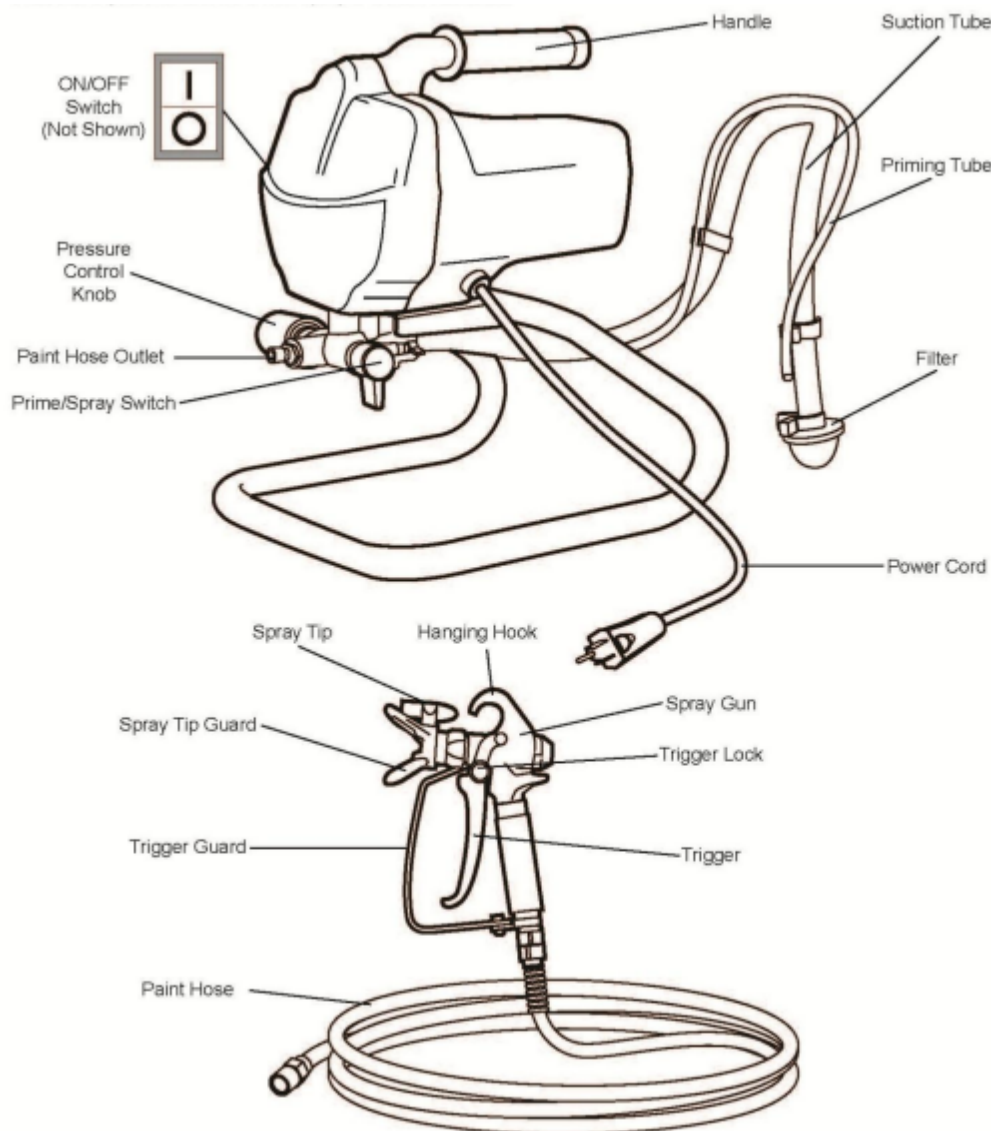
Imagine the piston pump like a "T". On the long side, the piston moves steadily up and down.

On one side there is a container with liquid to be pumped.

The inlet and outlet valves are located on the opposite sides. When the pump is started, the piston moves downwards.

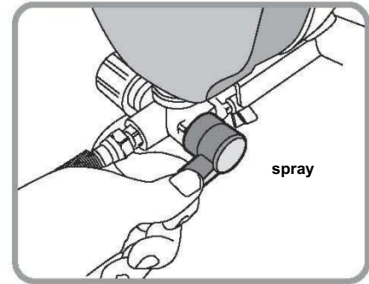
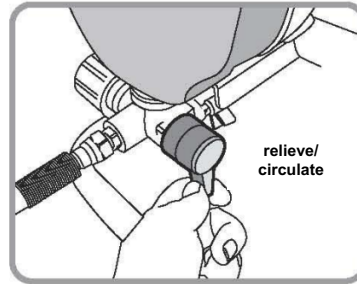
The liquid is now transferred, creating a vacuum in the tank. The vacuum opens the inlet valve and closes the outlet valve.

Consequently, the liquid is sucked in until the piston reaches the upper point again. In this way, the liquid is compressed and transported outside.



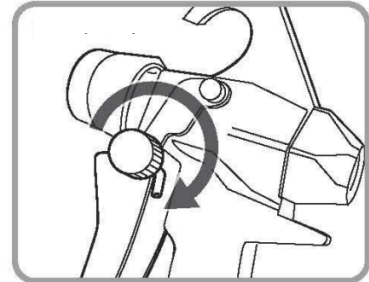
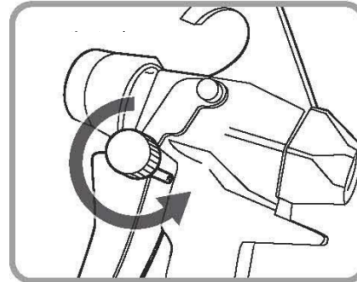
**Relief valve**

This valve is used to pressurize or relieve the system accordingly



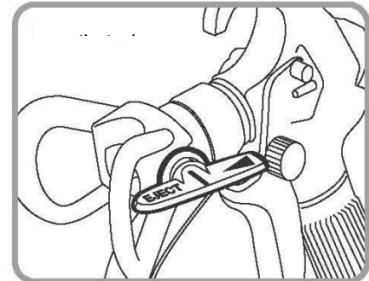
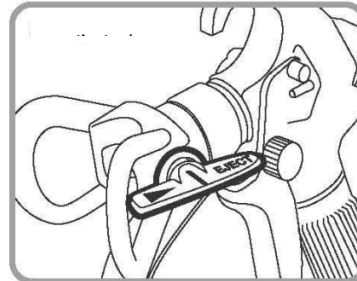
**Trigger lock**

This safety mechanism prevents accidental trigger release. **Always activate lock as soon as spraying is not in progress**



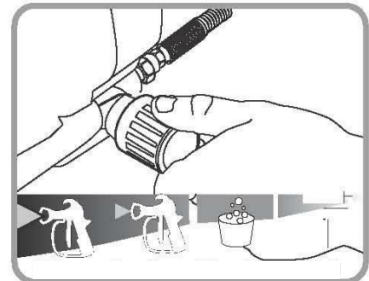
**Reversible nozzle**

In order to remove possible blockages more easily, the supplied nozzle is rotatable and easy to remove.



**Pressure regulating valve**

The required material pressure can be easily and continuously adjusted via this rotary valve



**3.2. Technical Data**

Max. flow rate	1,44l/ min
Max. operating pressure	3000PSI, 207 bar
Weight	6,5 kg
Suction system	Flexible
Technology	Piston Pump
Drive	Electric
Power requirements	AC 230V/ 50Hz
Input power	650 Watt - 750W
Rated current	2,0 – 3,1 A
Sound pressure level at operator position	<73.9dB(A)
Sound power level	90 dB(A)
Vibration level Max	0.698m/s <sup>2</sup>
Max. particle size	2 mm
Max temp. paint	40°C
IP Class	IP23 Class B
Drawing No. Electrical Diagram	RP8622.2
Working environment temperature requirement	5-40 °C
Standard nozzle	517
Max. material hose length	7,5m
Paint outlet connector	1/4" NPS

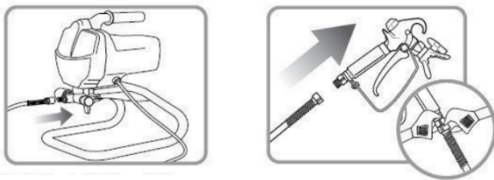


## 4. Operation

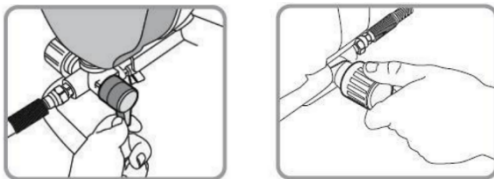
### 4.1. Setting up and initial start-up

It is necessary that the pump is in a horizontal position. It must be ensured that all necessary screw connections are firmly tightened. All components used at the material outlet (hoses/ pressure gauge) must be designed for the maximum pump pressure. It must be ensured that the length of the suction used allows smooth suction. Note: The pump has been functionally tested with oil or other liquids, so it is necessary to rinse it with warm soapy water before initial operation.

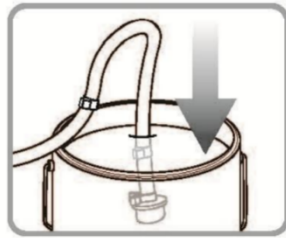
- Attach the supplied pressure gauge directly to the pump outlet, followed by the high pressure hose. Now connect the gun to the high-pressure hose and tighten all material-carrying connections accordingly in order to exclude leaks. Attach the supplied suction- and return hoses at the appropriate points. It is always a good idea to start up the pump with water first in order to identify any leaks at an early stage.



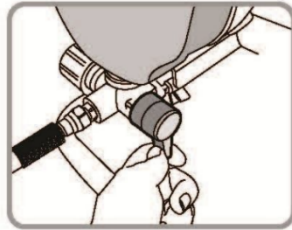
- Lock the trigger lock on the gun and now mount the nozzle in the nozzle holder provided.
- After you plug in your sprayer, it is ready for use.
- Before turning on the sprayer, first make sure that the pressure relief valve is set to 'prime' and the pressure control valve is set to 'low speed'.



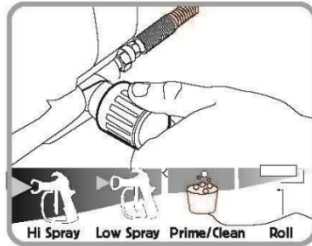
## 4.2. Filling with coating material



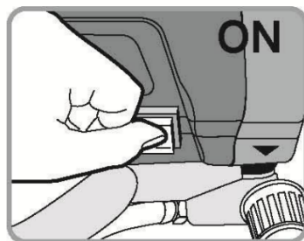
Immerse the suction system incl. return hose into your paint container.



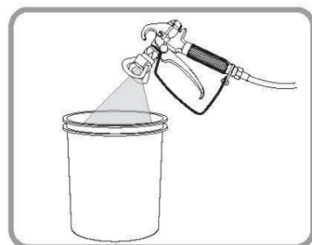
2. Set the relief valve to Prime.



3. Now turn the pressure control valve to Prime/ Clean.



4. Switch on your pump and the system will fill with the coating material to be applied. If this occurs without any problems, you should be able to detect bubbles in the bucket until the system is completely filled. If this is not the case, the inlet valve may be stuck, which can be easily loosened by pressing the inlet valve trigger on the underside of the pump.



5. To fill the hose with the coating material, set the relief valve to spray and pull the gun trigger in parallel until material comes out of the gun. When filling the system, it is advantageous to turn the nozzle 180° (cleaning position) and hold the gun in the bucket. Secure the gun as soon as the system is filled.

**4.3. Processable coating materials**

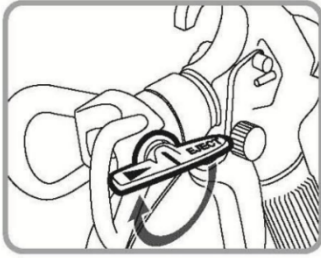
- Water- and solvent-based paints and glazes
- Latex and dispersion paints for interior use

**4.4. Non- processable coating materials**

- Filling compounds
- Facade paints
- Lyes
- Combustible materials such as nitro thinners

## 4.5. Spraying

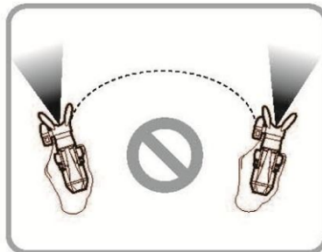
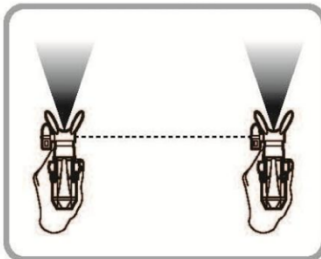
1. Secure gun and turn nozzle in spraying direction



2. Slowly increase the pressure at the pressure control valve until the desired spray pattern is achieved. This can be recognized by the fact that no more edge stripes are visible in the spray pattern.



3. Always spray 90° to the object and at a distance of 25cm.



30% overlap  
recommended for each  
spray path

4. If work is interrupted, secure the gun and relieve the pressure in the system via the pressure relief valve (position 'Prime').
5. If no more coating material comes out of the nozzle, either the paint container is empty or the nozzle is clogged with impurities. If this is the case, simply turn the nozzle 180° with the gun secured. Then unlock the gun and pull the trigger briefly to remove the contamination. Once the blockage is removed, secure the gun again and rotate the nozzle 180° once more. Now you can continue.

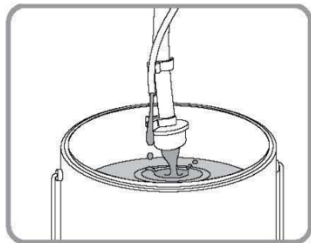
## 5. Cleaning

Before cleaning:

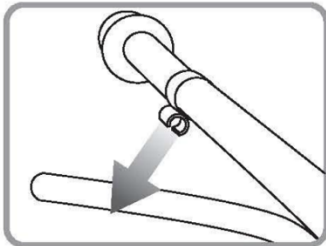
- Relieve the system via the pressure relief valve! (position 'Prime')
- Only use suitable solvents for cleaning or warm water for water-based coating materials.
- Never spray on cleaning agents with a gun.

Cleaning:

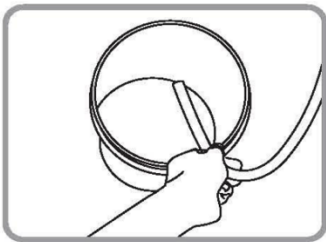
The device/system must be cleaned immediately and thoroughly after each use in order to avoid damage and to ensure proper functioning!



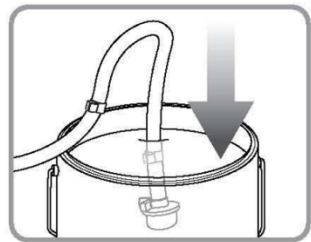
2. Relieve the pressure and remove the suction system from the



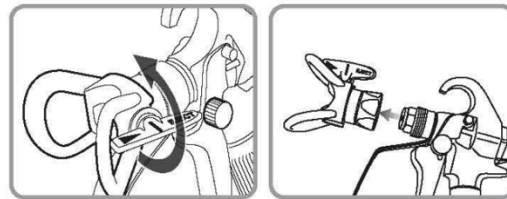
4. Disconnect the return hose from the suction system



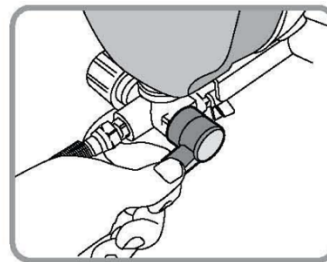
6. Hold return hose in waste container



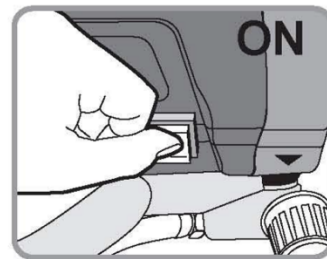
8. place suction hose in bucket with water or required cleaning agent.



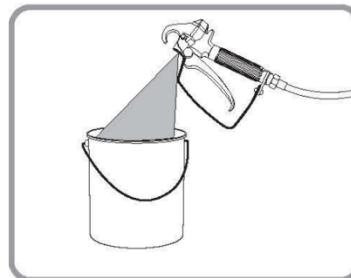
1. Remove the nozzle holder and nozzle from the gun.



3. Switch pressure relief valve to 'spray'.



5. Turn on the unit



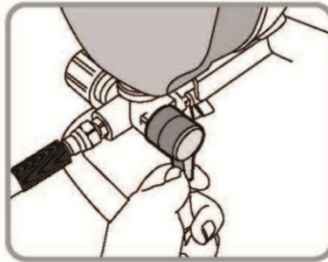
7. Spray remaining paint in the system back into the paint bucket



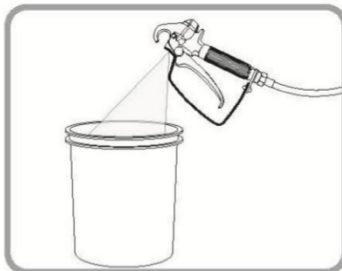
9. As soon as paint strongly diluted change to waste container



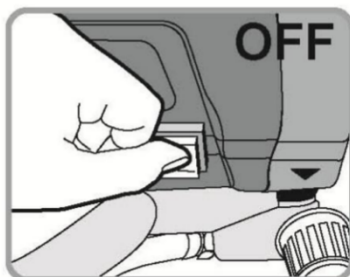
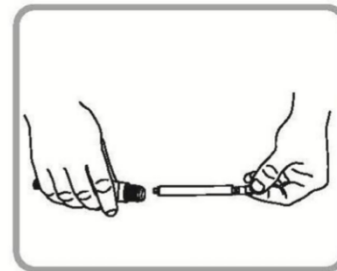
10. Remove holder and nozzle as well as filter



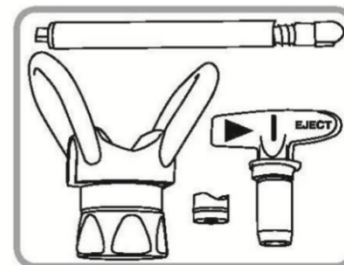
11. Switch relief valve to 'Prime'



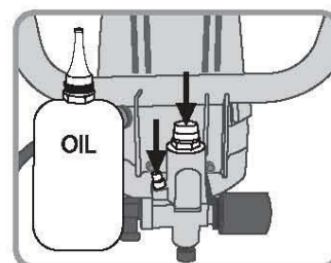
12. Weiter sprühen bis klares Wasser kommt



14. Relieve the pressure, secure the gun and switch off the unit.



13. Thoroughly clean all parts in warm soapy water or suitable detergent



15. If the unit is not used for a longer period of time, put a few drops of machine oil into the openings shown above and briefly operate the pressure control valve and the relief valve. Then let the pump run for 4 seconds and switch it off again.

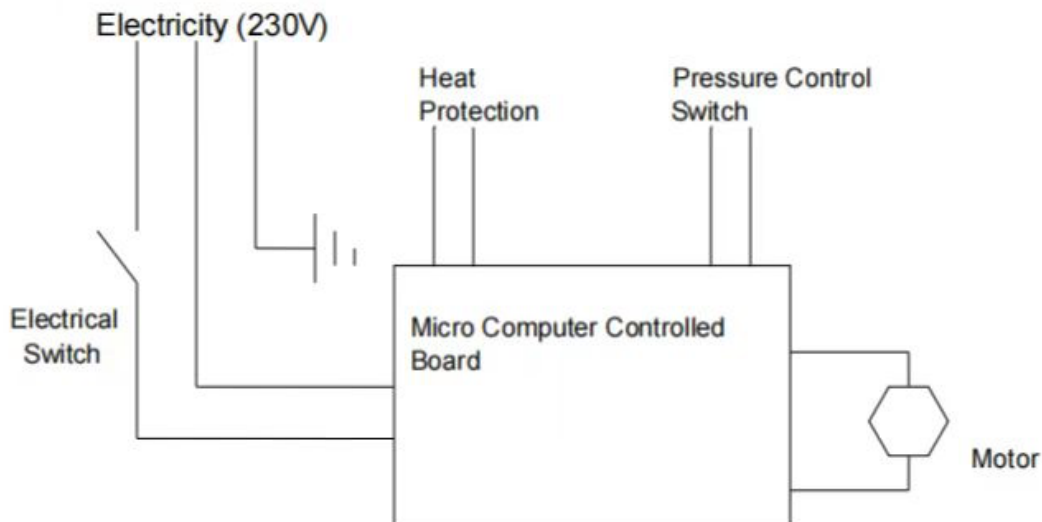
Note: Please do not let the pump run dry for more than 4 seconds, otherwise there is a risk of premature wear or damage.

## 6. Trouble shooting

Problem	Root cause	Solution
Motor does not run	Lack of power supply	Plug in device
	Setting pressure control valve to minimum	Slowly increase pressure by turning the pressure control valve
Pump does not suck coating material	Viscosity of the coating material too high	Dilute coting material
	Pump draws air	Check intake system and connections for leaks
	Inlet valve stuck	Press the inlet pusher valve on the underside of the pump several times
No coating material comes out of the gun despite pressure	Nozzle clogged	Turn nozzle by 180° and pull off gun. Then rotate nozzle again by 180° and continue working
	Clogged gun filter	Remove gun filter and clean or replace

If the error does not appear in the above table, please contact the Coating. Contact the service hotline.

### 230V Airless Sprayer Electrical Installation Drawing



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## 7. Accessories and spare parts

If you are looking for accessories or need spare parts, please visit our homepage [www.beschichtpunkt.de](http://www.beschichtpunkt.de) or contact our service hotline directly.

## 8. Product liability

If third-party accessories and spare parts are used, liability may be waived in whole or in part.

With original accessories and spare parts you have the guarantee that all safety regulations are fulfilled. For any extended warranty claims, please refer to our general terms and conditions.

We do not assume any warranty for damage caused or contributed to by the following reasons:

- unsuitable or improper use
- faulty assembly or commissioning by the purchaser or by third parties
- natural wear and tear
- incorrect handling or maintenance
- unsuitable coating materials
- substitute materials and chemical, electrochemical or electrical influences, provided that the damage is not attributable to any fault on our part
- wear and tear caused by the use of abrasive coating materials such as dispersions, glazes etc.

Components not manufactured by beschichtpunkt GmbH are subject to the manufacturer's original warranty.

The replacement of a part does not extend the period of warranty of the device.

The device must be inspected immediately upon receipt. To avoid loss of warranty, obvious defects must be reported to the supplier or to us in writing within 14 days after receipt of the device.

We reserve the right to have the warranty fulfilled by a contracting company.

The performance of this warranty is dependent on proof by invoice or delivery bill. If the examination shows that there is no claim for warranty, the repair is at the expense of the buyer.

It is clarified that this warranty claim does not represent a limitation of the legal claims or the claims contractually agreed by our general terms and conditions.

If you use our products in a country where operating instructions in the national language are required and these are not yet available from beschichtpunkt GmbH, please contact us before use.



## 9. Declaration of conformity

We, the device manufacturer, declare under our sole responsibility that the product in the description below complies with the relevant basic safety and health requirements. In the event of a modification to the device not agreed with us or in the event of improper use, this declaration shall lose its validity.

Manufacturer	beschichtpunkt GmbH Halle 10 Graf-von-Soden-Straße 88090 Immenstaad
Part No. P2-E17	
Applied standards and directives	
EMC directive (2014/30/EU, zuvor 2004/108/EC, former 89/336/EEC) Machinery directive (2006/42/EC, former 98/37/EC) Noise emission (2000/14/EC) EU directive 12621:2006+A1:2010 EU directive 60204-1:2018 WEEE directive (2012/19/EU, former 2002/96/EC) RoHS directive (2011/65/EU, former 2002/95/EC)	
<b>CE</b>	
Authorized with the compilation of technical documentation: Wolfgang Merz beschichtpunkt GmbH, Halle 10, Graf-von-Soden-Straße, 88090 Immenstaad	

18.April 2022, Wolfgang Merz  
(CEO)

**beschicht.**

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