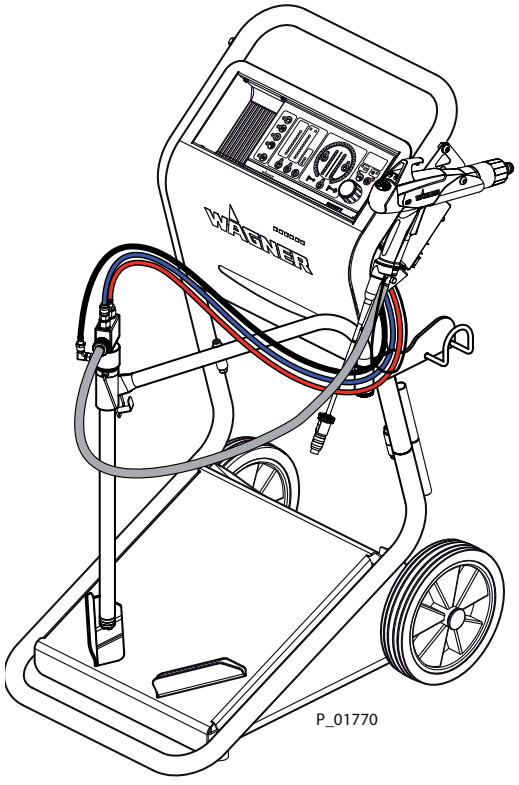
WAGNER

Translation of the Original Operating Manual

SPRINT

Manual Powder System

Version 01 / 2013



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Contents

Contents

1 GENERAL INFORMATION

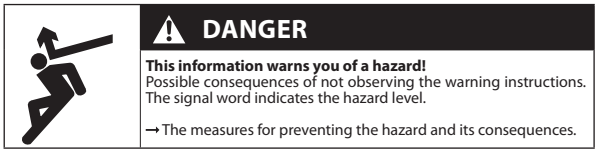
1.1 PREFACE

The operating manual contains information about safely operating, maintaining, cleaning and repairing the device.
The operating manual is part of the device and must be available to operating and service staff.
The operating and service staff should be instructed according to the safety instructions
The device may only be operated in compliance with this operating manual.
This equipment can be dangerous if it is not operated according to the definitions in this operating manual.

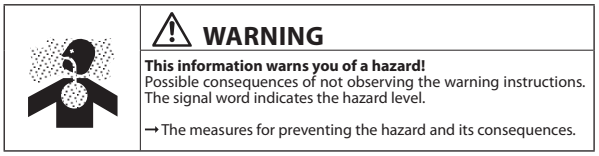
1.2 WARNINGS, NOTES AND SYMBOLS IN THESE INSTRUCTIONS

Warning instructions in this operating manual highlight particular dangers to users and device and state measures for avoiding the hazard. These warning instructions fall into the following categories:

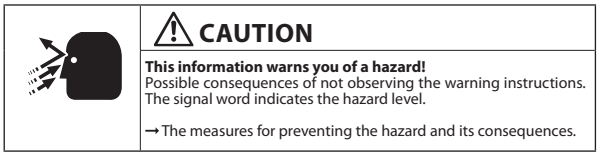
Danger - immediate risk of danger.
Non-observance will result in death or serious injury.



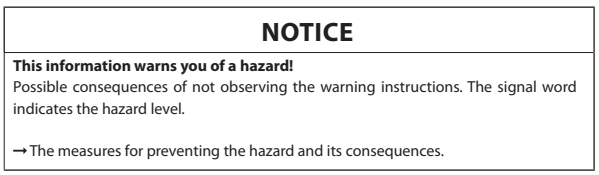
Warning - possible imminent danger.
Non-observance may result in death or serious injury.



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



Notice - a possibly hazardous situation.
Non-observance may result in damage to property.



Note - provides information about particular characteristics and how to proceed.

1.3 LANGUAGES

The operating manual is available in the following languages:

German	2327744	English	2329368
French	2330844	Italian	2330845
Spanish	2330846	Russian	2333351
Chinese	2333352	Dutch	2337609

1.4 ABBREVIATIONS

Stk	Number of pieces
Pos	Item
K	Marking in the spare parts lists
Order No.	Order number
ET	Spare part

2 CORRECT USE

2.1 DEVICE TYPE

Manual powder system for manual coating of grounded work pieces

2.2 CORRECT USE

The manual System is designed for single and serial coatings for industry and trade. The components of the three different versions of the Sprint manual system (Airfluid version, 60 l container version) are mutually compatible.

2.3 FOR USE IN POTENTIALLY EXPLOSIVE AREAS

This manual powder system is suitable for processing industrial powder paints for coating electrically conductive objects and can be used in potentially explosive atmospheres (zone 22). (See chapter 3.1 "Explosion Protection Identification").

2.4 SAFETY PARAMETERS

The manual powder system is only suited to the application of powder paint.
J. Wagner AG forbids any other use!
The manual powder system may only be operated under the following conditions if:

- the operating staff have previously been trained on the basis of this operating manual,
- the safety regulations listed in this operating manual are observed,
- the operating, maintenance and repair information in this operating manual is observed,
- and the statutory requirements and accident prevention regulations standard in the country of use are observed.

The transfer carriage may only be used if all parameters are set and all measurements/ safety checks are carried out correctly.

2.5 PROCESSING MATERIALS

- Types of powder which can be charged electrostatically
- Metallic powder

2.6 REASONABLY FORESEEABLE MISUSE

- Coating work pieces which are not grounded
- Use of damp powder paint
- Working with liquid coating materials
- Incorrectly set values for powder discharge
- Incorrectly set electrostatic values
- Use of defective components and accessories
- Use for foodstuffs
- Use in the pharmaceutical sector
- Use with not permissible control units and powder guns

2.7 RESIDUAL RISKS

Residual risks are risks which cannot be excluded even in the event of correct use.
If necessary, warning and prohibition signs at the relevant points of risk indicate residual risks.

Residual risk	Source	Consequences	Specific measures	Lifecycle phase
Skin contact with powder paints and cleaning agents	Handling powder paints and cleaning agents	Skin irritation, allergies	Wear protective clothing Note safety data sheets	Operation, maintenance, disassembly
Powder paint in air outside the defined working area	Painting outside the defined working area	Inhalation of substances hazardous to health	Observe working instructions and operating procedures	Operation, maintenance

3 IDENTIFICATION

3.1 EXPLOSION PROTECTION IDENTIFICATION

3.1.1 TROLLEY IDENTIFICATION

The device is suited for use in areas at risk from explosions, in accordance with Test Certificate PTB 12 ATEX 5001.

Device type:	Airfluid trolley / 60 L trolley
Manufacturer:	J. Wagner AG
	CH - 9450 Altstätten
CE Ex	II 3D 85 °C
CE:	European Communities
Ex:	Symbol for explosion protection
II:	Device class II
3:	Category 3
D:	Ex-atmosphere dust
85 °C:	Maximum surface temperature

3.1.2 CONTROL UNIT IDENTIFICATION

The device is suited for use in areas at risk from explosions, in accordance with Test Certificate PTB 12 ATEX 5002.

Device type:	EPG-Sprint X
Manufacturer:	J. Wagner AG
	CH - 9450 Altstätten
CE 0102 Ex	II 3(2)D IP 64 80 °C
CE:	European Communities
0102:	Number of notified body which issues the recognition of quality assurance in production
Ex:	Symbol for explosion protection
II:	Device class II
3:	Category 3 (zone 22)
(2):	Impact on equipment of category 2
D:	Ex-atmosphere dust
IP64:	Protection class 64
80 °C:	Temperature class: maximum surface temperature < 80 °C; 176 °F

3.1.3 POWDER GUN IDENTIFICATION

The device is suited for use in areas at risk from explosions, in accordance with Test Certificate PTB 12 ATEX 5002.

Gun type:	PEM-X1
Manufacturer:	J. Wagner AG
	CH - 9450 Altstätten
CE 0102 Ex	II 2D 2mJ 85 °C
CE:	European Communities
0102:	Number of notified body which issues the recognition of quality assurance in production
Ex:	Symbol for explosion protection
II:	Device class II
2:	Category 2
D:	Ex-atmosphere dust
2mJ:	Maximum ignition energy 2 mJ
85 °C:	Maximum surface temperature

The EC Certificat of type examination are listed in chapter 15.4.

3.2 PERMISSIBLE DEVICE COMBINATIONS

⚠ WARNING

Incorrect use!
Risk of injury and damage to the device.

→ Only use the manual system with the original Wagner control units and powder guns.

Only use the Sprint manual system with the following guns and control units:

Control Units	AC- Guns
● EPG-Sprint X	● PEM-X1, PEM-X1 CG Corona spray guns
● EPG-Sprint	● PEM-C4 Corona spray gun
	● PEM-C4-Ergo Corona spray gun
	● PEM-C4-Ergo Corona spray gun FM USA
	● PEM-T3 Tribo spray gun

4 GENERAL SAFETY INSTRUCTIONS

4.1 SAFETY INSTRUCTIONS FOR THE OPERATOR

→ Keep this operating manual at hand near the device at all times.
→ Always follow local regulations concerning occupational safety and accident prevention.

4.1.1 ELECTRICAL DEVICES AND OPERATING EQUIPMENT

→ To be provided in accordance with the local safety requirements with regard to the operating mode and ambient influences.
→ May only be maintained by skilled electricians.
→ Must be operated in accordance with the safety regulations and electrotechnical regulations.
→ Must be repaired immediately in the event of problems.
→ Must be put out of operation if they pose a hazard.
→ Must be de-energized before work is commenced on active parts.
→ Secure the device against being switched back on without authorization. Inform staff about planned work.
→ Observe electrical safety regulations.

4.1.2 PERSONNEL QUALIFICATIONS

→ Ensure that the device is operated and repaired only by trained persons.

4.1.3 A SAFE WORK ENVIRONMENT

→ The floor in the working area must be electrostatically conductive (measurements according to EN 1081 and EN 61340-4-1).
→ The footwear worn by the operators must comply with the requirements of EN ISO 2034. The measured insulation resistance must not exceed 100 Megaohms.
→ The protective clothing, including gloves, must comply with the requirements of EN ISO 1149-5. The measured insulation resistance must not exceed 100 Megaohms.
→ The powder release must be electrically interlocked with the powder spray system's exhaust air equipment.
→ Excess coating material (overspray) must be collected up safely.
→ Ensure that there are no ignition sources such as naked flames, sparks, glowing wires or hot surfaces in the vicinity. Do not smoke.
→ Provide sufficient numbers of suitable fire extinguishers and ensure that they are serviceable.
→ The operating company must ensure that the average concentration of powder paint in the air does not exceed 50% of the lower explosion limit (LEL = max. permitted concentration of powder to air). If no reliable LEL value is available, the average concentration must not exceed 10 g/m^3.

4.2 SAFETY INSTRUCTIONS FOR STAFF

→ Always follow the information in these instructions, particularly the general safety instructions and the warning instructions.
→ Always follow local regulations concerning occupational safety and accident prevention.
→ Under no circumstances may people with pacemakers enter the area where the high-voltage field between the spray gun and the work piece to be coated builds up!

4.2.1 SAFE HANDLING OF WAGNER POWDER SPRAY DEVICES

→ Do not point spray guns at people.
→ Before all work on the device, in the event of work interruptions and functional faults:
- Switch off the energy/compressed air supply.
- Lock spray guns to prevent them actuating.
- Relieve pressure on spray guns and device.
- In the event of functional faults: Identify and correct the problem, proceed as described in chapter "Elimination of Faults".

4.2.2 GROUNDING THE DEVICE

The electrostatic charge may, in certain cases, give rise to electrostatic charges on the device. In the event of discharge, this may result in the formation of sparks or flames.
→ Ensure that the device is grounded before each coating process.
→ Ground the work pieces to be coated.
→ Ensure that all persons inside the working area are grounded, e.g. by wearing electrostatically conductive shoes.
→ The function of grounding cables must be checked regularly (See EN 60204.).

4.2.3 MATERIAL HOSES

→ Only use original Wagner powder hoses.

4.2.4 CLEANING

- → Before starting any cleaning work, the high-voltage must be switched off and secured against being inadvertently switched on.
- → Secure the device against being switched back on without authorization.
- → Liquid cleaning agents must not be used!
- → Only mobile industrial vacuum cleaners of design 1 (see EN 60335-2) may be used to remove dust deposits.

4.2.5 HANDLING POWDER PAINTS

- → Take note of the processing regulations laid down by the manufacturer of the powder paint being used, when preparing or processing the powder.
- → Take note of the manufacturer's advice and the relevant environmental protection regulations when disposing of powder paints.
- → Take the prescribed safety measures, in particular by wearing safety glasses and safety clothing and by using protective hand cream if required.
- → Use a mask or breathing apparatus if necessary.
- → To ensure sufficient protection of health and the environment, only operate the device in a powder booth or at a spray wall with activated ventilation (exhaust air).

4.3 PROTECTIVE AND MONITORING EQUIPMENT

⚠ WARNING

Protective and monitoring equipment!
Risk of injury and damage to the device.

- → Protective and monitoring equipment must not be removed, modified or rendered unusable.
- → Regularly check that they are working perfectly.
- → If defects are detected on protective and monitoring equipment, the system must not be operated until these defects are remedied.

5 DESCRIPTION

5.1 AREAS OF APPLICATION

The manual system is designed for single and serial coatings for industry and trade. The following Wagner manual guns can be used with the manual system.

- PEM-X1 Corona spray gun
- PEM-C4 Corona spray gun
- PEM-C4-Ergo Corona spray gun
- PEM-C4-Ergo Corona spray gun FM (US version)
- PEM-T3 Tribo spray gun

5.1.1 OPERATION WITH TRIBO GUN

When operating the manual system with a Tribo gun, the set values (total air volume, feed air volume, Tribo air volume) in recipes 1-4 must be adjusted. The setting of the values is described in the operating manual of the EPG-Sprint X control unit.

The set values for operating with the Tribo gun should be saved to individually selected recipe locations.

When operating with a Tribo gun, parameter C11 on the EPG-Sprint X control unit must be changed to Tribo. Please refer to the control unit Operating Manual on the supplied CD for the procedure.

5.1.2 OPERATION WITH CORONA OR TRIBO GUN

To alternately operate a Corona or a Tribo gun, both guns can be connected to the system at the same time through a switch box, which is available as an accessory. For more details see Chapter 12.5.

The set values for operating with the Tribo gun should be saved to individually selected recipe locations.

5.2 DESIGN VARIANTS

Order No.	Description
2329483	Sprint Airfluid Plus C manual powder system (standard version)
2329489	Sprint 60 L C manual powder system (standard version)
2329487	Sprint Airfluid C manual powder system (US version)
2329491	Sprint 60 L C manual powder system (US version)

When working with powders that are difficult to feed, the Sprint 60 L manual system can be converted into a variant with a vibrator table (see chapter 12.12).

5.3 SCOPE OF DELIVERY

Stk	Order No.	Description
1	See Chapter 13.2	Sprint Airfluid C manual powder system
1	See Chapter 13.3	Sprint 60 L C manual powder system without container
The standard equipment includes:		
1	See Chapter 15.3	Declaration of conformity
1	2327744	Operating manual German
1	See Chapter 1.3	Operating manual in local language
1		Accompanying CD

5.4 PERMITTED ACCESSORIES

Only the accessories listed in the chapter "Accessories" of this operating manual may be connected to the Sprint manual powder system.
The accessories listed in the chapter "Accessories" were included in the EC type examination and are approved for use with the manual powder system.

5.5 TECHNICAL DATA

Dimensions:	
Height	1120 mm; 44.10 inches
Width	595 mm; 23.43 inches
Depth	740 mm; 29.13 inches
Weight	approx. 38 kg; 83.77 lbs
Maximum box size	420x420x400 mm; 16.54x16.54x15.75 inches
Maximum filling weight of box	30 kg; 66.14 lbs

Electrical:	
Mains (AC)	85 VAC-250 VAC
Frequency	47 Hz-440 Hz
Max. performance	40 W
Output voltage	maximum of 22 Vpp
Output current	maximum of 0.9 A
Corona current limitation	5 µA-120 µA (adjustable)
Tribo current cut off	higher than 12 µA (ATEX: switch the unit off)
Protection class	IP 64

Pneumatic:	
Air inlet connection	G1/4"
Connection hose diameter	18.5 x 12.5 mm
Pressure range input air	0.6-0.8 MPa ; 6-8 bar; 87-116 psi
Air volume	maximum of 20 m^3/h; 706.2 cf/h
Sum of feed and dosage air	2-12 m^3/h; 70.6-423.7 cf/h
Gun air	0.05-4.5 m^3/h; 1.765-158.9 cf/h
Wagner injector type	PI-F1, HiCoat ED pump F
Compressed air quality according to ISO 8573.1	3.5.2

⚠ WARNING

Outgoing air containing oil!
Risk of poisoning if inhaled.
Insufficient paint application quality.

→ Provide compressed air free from oil and water (quality standard 3.5.2 according to ISO 8573.1) 3.5.2 = 5 µm / +7 °C; 44.6 °F / 0.1 mg/m^3.

Ambient conditions:
If low-temperature powders are used, the ambient temperature may have to be below 30 °C; 86 °F.

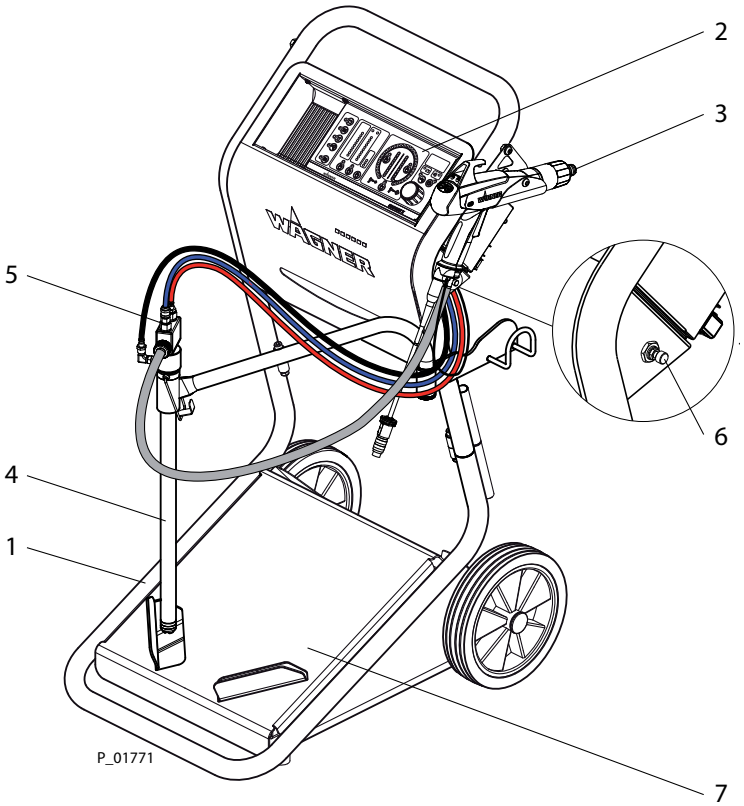
Volume measures:
for volumes specified in Nm^3 (standard cubic meters). One cubic meter of gas at 0 °C and 1.013 bar constitutes one standard cubic meter.

Displays:	
High-voltage	0-100 kV resolution 10 kV
Corona current	0-120 µA resolution 5-20 µA
Tribo current:	0-5 µA resolution 0.5 µA
Recipes	50 preset recipes
Switch over from Tribo to Corona	Automatic
Connectable spray gun types	Wagner guns PEM-X1, PEM-C4, PEM-C4-Ergo, PEM-C4-Ergo FM, PEM-T3

Ambient conditions:	
Operating temperature range	5-45 °C; 41-113 °F
Noise development	< 63 dB (mains pressure 0.6 MPa; 6 bar; 87 psi)

5.6 FUNCTIONING OF THE MANUAL POWDER SYSTEM

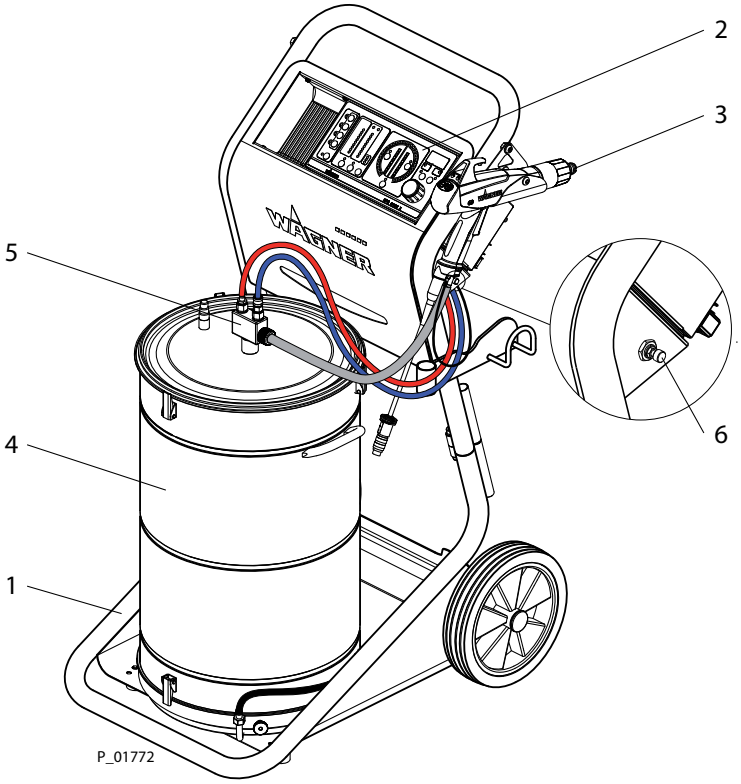
5.6.1 SPRINT AIRFLUID DESCRIPTION



1 Equipment trolley
2 EPG-Sprint X control unit
3 PEM-X1 manual gun
4 ST 550/10 suction tube
5 PI-F1 powder injector
6 Fluid air throttle
7 Vibration table

Feed unit 4 is inserted directly into the original bundle. The powder is fed through powder injector 5 to powder spray gun 3. Due to the special arrangement of the suction crown and the vibration of the container, a homogeneous powder/air mixture is generated and maintained during the entire duration of the powder feed. The powder quantity and the electrostatic charge of the color powder are regulated by control unit 2. The fluid air setting is done using throttle 6.

5.6.2 SPRINT 60 L CONTAINER DESCRIPTION (WITHOUT VIBRATOR TABLE)

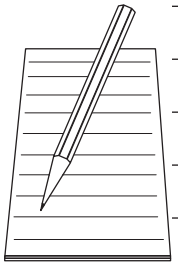


1 Equipment trolley
2 EPG-Sprint X control unit
3 PEM-X1 manual gun
4 60 L container
5 PI-F1 powder injector
6 Fluid air throttle

Function:

Through powder injector 5 the powder is transported from container 4 to spray gun 3. By feeding fluid air into the fluid base of powder container 4, a homogeneous powder/air mixture is generated and maintained during the entire process of the powder feed from the container.
The powder quantity and the electrostatic charge of the color powder are regulated by control unit 2. The fluid air setting is done using throttle 6.

Note:
We recommend using a vibrator table when working with powders that are difficult to feed (see chapter 12.12).



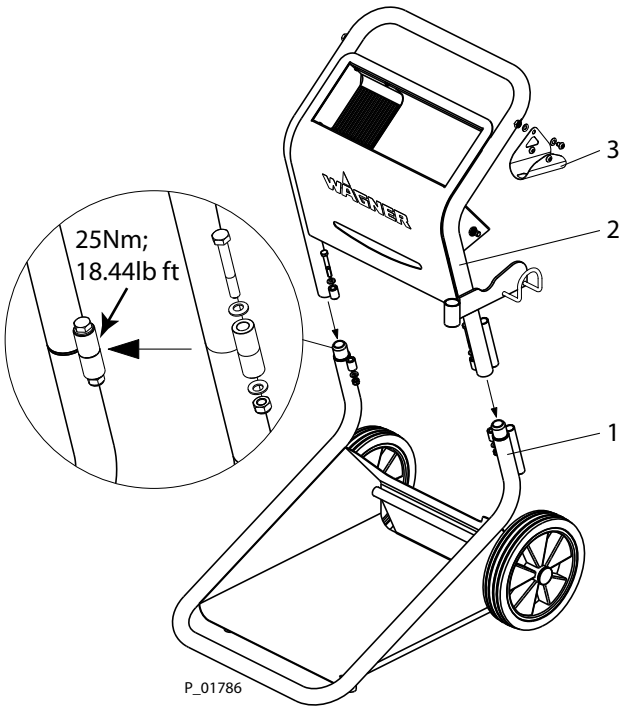
6 ASSEMBLY AND COMMISSIONING

6.1 TRAINING ASSEMBLY/COMMISSIONING STAFF

⚠	**⚠ WARNING** **Incorrect installation/operation!** Risk of injury and damage to the device. → The commissioning staff must have the technical skills to safely undertake commissioning. → The commissioning staff must be familiar with the provisions of the European standards DIN EN 50050-2 and DIN EN 50177. → When putting into operation and for all work, read and follow the operating manual and safety regulations for the additionally required system components.

6.2 ASSEMBLING THE EQUIPMENT TROLLEY

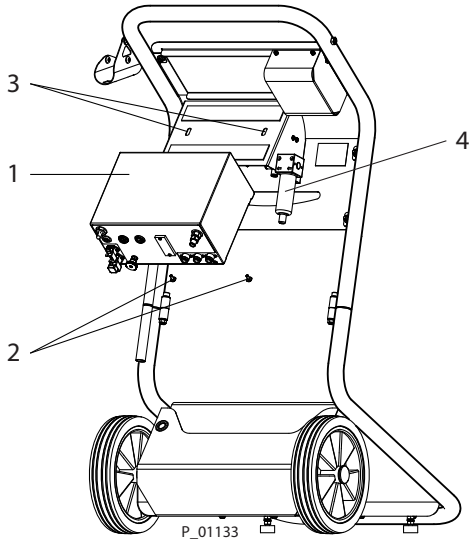
The manual system's trolley is supplied unassembled for reasons associated with transport.
It must be assembled as described below.



Procedure:

1. Open transport packaging with care and carefully take all single parts out of packaging.
2. Place lower trolley section 1 on a clean, level surface.
3. Place upper trolley section 2 on the two guide sleeves on lower trolley section 1, press down gently until stop is reached and use nuts and bolts (see details) to screw to lower trolley section (tightening torque 25 Nm; 18.44 lb ft).
4. Mount the gun holder 3 (see separate Assembly Instruction).

6.3 MOUNTING THE CONTROL UNIT



Procedure:

1. Carefully take control unit 1 out of packaging and use the screws 2 supplied to screw to the holes drilled in the angle bracket 3.

   Mount the control unit such that it is flush with the cover at the front.

6.4 CONNECTION REQUIREMENTS

The assembly of the manual powder system is the same for the Corona spray gun and for the Tribo spray gun.

The manual system is equipped with a filter water separator 4 as standard feature. Nevertheless, a high compressed air quality is still required for safe operation of the system. The plant operator is responsible ensuring the required compressed air quality.

⚠ WARNING

Outgoing air containing oil!
Risk of poisoning if inhaled.
Insufficient paint application quality.

→ Provide compressed air free from oil and water (quality standard 3.5.2 according to ISO 8573.1) 3.5.2 = 5 µm / +7 °C; 44.6 °F / 0.1 mg/m³.

⚠ WARNING

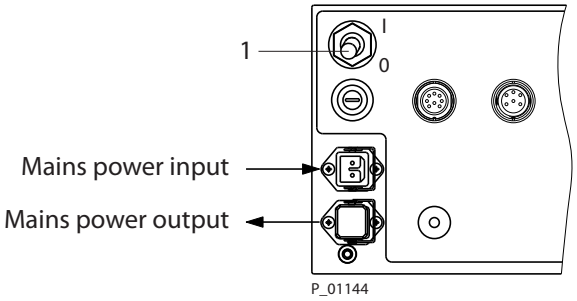
Danger from electric current!
Risk of injury and damage to the equipment.

→ Switch off main switch 1 on the back side of the equipment before connecting the equipment.

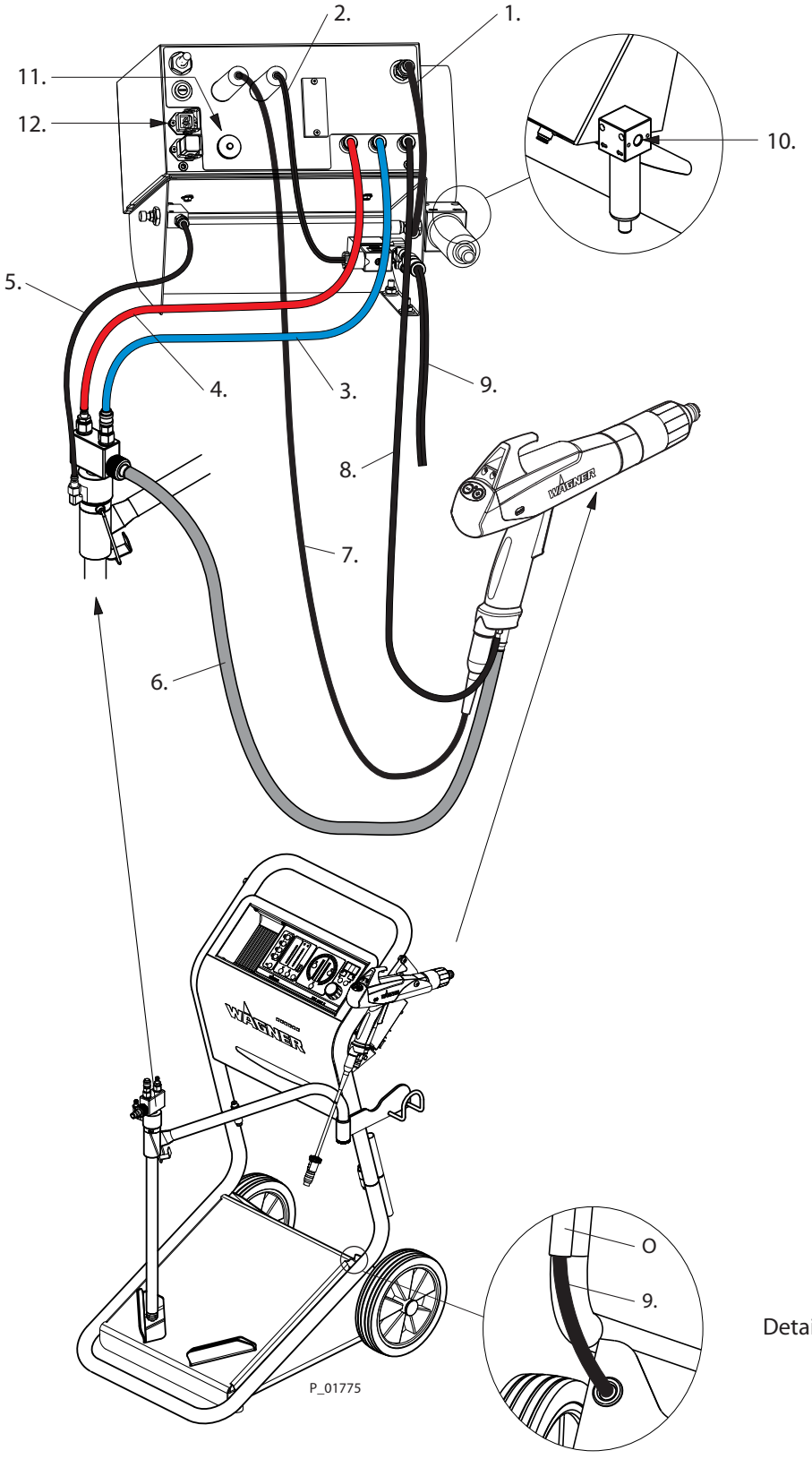
CAUTION

Missing cover!
Protection class of device not guaranteed.
Contamination of the device.

→ The mains power output socket must remain closed in this manual system with the cover closed.



6.5 CONNECTING THE AIRFLUID MANUAL POWDER SYSTEM



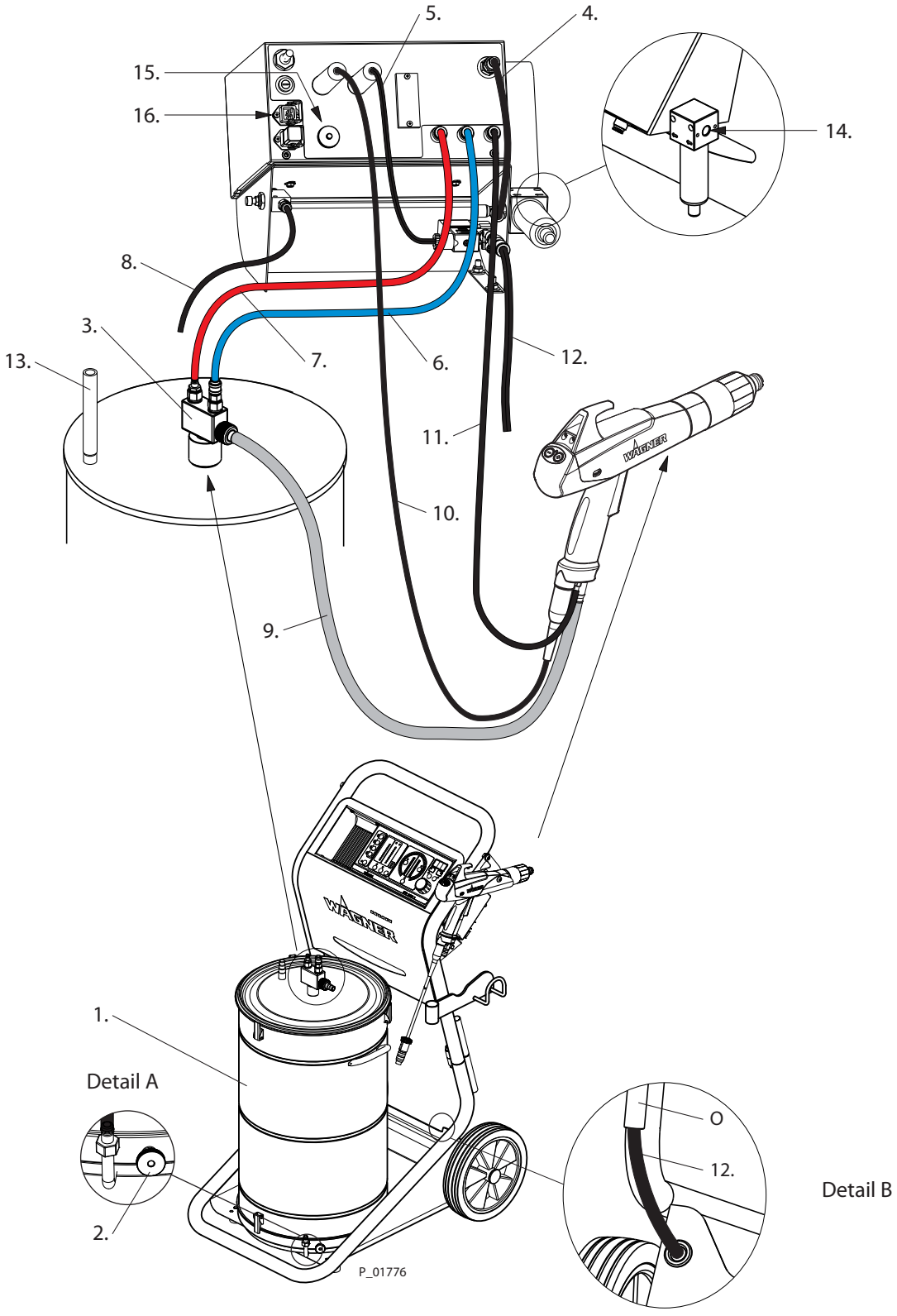
Detail A

	**⚠ WARNING** **Danger from electric current!** Risk of injury and damage to the equipment. → Switch off main switch 1 on the back side of the equipment before connecting the equipment.

Procedure:

1. Connect the hose (black) for mains pressure.
2. Plug in the control cable from the solenoid valve on the control unit.
3. Connect the dosage air hose (blue).
4. Connect the feed air hose (red).
5. Connect the fluid air hose (black).
   Bundle the three hoses with Velcro cable binders.
6. Connect the powder feed hose.
7. Plug in the gun connection cable on the control unit.
8. Connect the hose (transparent) for the atomizing or Tribo air.
   Bundle the two hoses and the gun cable with Velcro cable binders.
9. Pull the hose (black) for the vibrator motor compressed air supply upwards through the tube O (Detail A) and connect it to the solenoid valve.
10. Connect the compressed air hose (12.5 x 18.5 mm, order no. 9981951) to the compressed air connection (G1/4") on the manual system.
11. Connect the trolley grounding cable to the control unit.
    Connect the control unit's grounding cable with the system ground!
12. Plug in the control unit mains cable.
13. Connect power cable to the power supply.

6.6 CONNECTING THE 60 L CONTAINER MANUAL POWDER SYSTEM



⚠ WARNING

Danger from electric current!
Risk of injury and damage to the equipment.

→ Switch off main switch 1 on the back side of the equipment before connecting the equipment.

Procedure:

1. Place the powder container on the trolley.
2. Connect the grounding cable to the grounding connection of the powder container (Detail A).
3. Attach injector to powder container.
4. Connect the hose (black) for mains pressure.
5. Plug in the control cable from the solenoid valve on the control unit.
6. Connect the dosage air hose (blue).
7. Connect the feed air hose (red).
8. Connect the fluid air hose (black) to the control unit. Pull it through tube O and the eyelet (Detail B) and connect it to the container (Detail A).

   Bundle the three hoses with Velcro cable binders.
9. Connect the powder feed hose.
10. Plug in the gun connection cable on the control unit.
11. Connect the hose (transparent) for the atomizing or Tribo air.

    Bundle the two hoses and the gun cable with Velcro cable binders.
12. When the manual system is equipped with a vibrator table, pull the hose (black) for the vibrator motor compressed air supply upwards through the tube O (Detail B) and connect it to the solenoid valve.
13. Connect exhaust air hose to the connection on the powder container.

    The other end of the exhaust air hose must be routed to the extraction unit of the powder spray booth.
14. Connect the compressed air hose (12.5 x 18.5 mm, order no. 9981951) to the compressed air connection (G1/4") on the manual system.
15. Connect the trolley grounding cable to the control unit.

    Connect the control unit's grounding cable with the system ground!
16. Plug in the control unit mains cable.
17. Connect power cable to the power supply.

6.7 GROUNDING

⚠ DANGER

No Grounding!
Risk of explosion and risk of electric shock.

→ Electrostatic control units and the associated spray equipment may only be connected to mains supplies with a protective conductor connection (PE conductor)!

⚠ WARNING

Defective grounding will result in high levels of powder mist!
Danger of poisoning.
Insufficient paint application quality.

→ Ground all device components.
→ Ground the work pieces to be coated.

For security reasons the manual system must be properly grounded. Normally this is done via the mains cable.
Good grounding of the work piece is also necessary for optimum powder coating.
It is important to keep the earth cables as short as possible. Earth cables of an excessive length must be shortened. Earth cables of an excessive length must never be wound up on a roller.

A poorly grounded work piece causes:

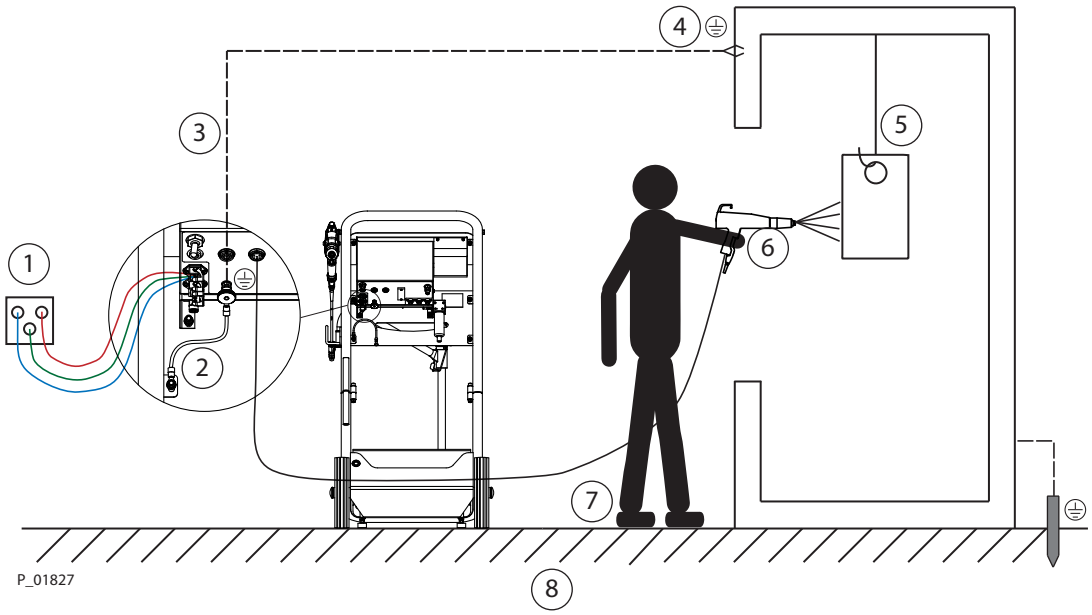
- Dangerous electric charging of the work piece.
- Very bad wrap around.
- Uneven coating.
- Back-spray to the spray gun, i.e. contamination.

Prerequisites for perfect grounding and coating are:

- Clean suspension of the work piece to be coated.
- Grounding of spraying booth, conveyor system and suspension by the customer in accordance with the operating manual or the manufacturer's information.
- Grounding of all conductive parts within the working area.
- The grounding resistance of the work piece may not exceed 1 Megaohm. (Resistance to ground measured at 500 V or 1000 V).
- The footwear worn by the operators must comply with the requirements of EN ISO 20344. The measured insulation resistance must not exceed 100 Megaohms.
- The protective clothing, including gloves, must comply with the requirements of EN ISO 1149-5. The measured insulation resistance must not exceed 100 Megaohms.

Sparks between conveyor, conveyor hooks (hangers) and work piece can occur if electric contact points between conveyor, conveyor hooks (hangers) and work piece are not sufficiently cleaned and therefore the work pieces are not sufficiently grounded!
These sparks can cause severe radio frequency interference (electro-magnetic compatibility = EMC).

6.7.1 GROUNDING THE POWDER COATING SYSTEM



1 **Only use mains cables with grounding strand!**
2 **Connect the trolley's grounding cable to the grounding connection of the control unit!**
3 **Connect the control unit's grounding cable with system ground!**
4 **Connect grounding cable to an uncoated metal part of the booth!**
5 **Remove all paint from hooks and other hanger parts!**
6 **Wear electrostatically conductive gloves!**
7 **Wear electrostatically conductive shoes!**
8 **The floor must be electrostatically conductive!**

7 OPERATION

7.1 TRAINING THE OPERATING STAFF

⚠ WARNING

Incorrect operation!
Risk of injury and damage to the equipment.

→ The operating staff must be qualified to operate the entire system.
→ Before work commences, the operating staff must receive appropriate training.
→ The operating staff must be familiar with the provisions of European standards DIN EN 50050-2 and DIN EN 50177.

7.2 SAFETY INSTRUCTIONS

⚠ WARNING

Incorrect operation!
Risk of injury and damage to the equipment.

→ If contact with powder materials or cleaning agents causes skin irritation, appropriate precautionary measures must be taken, e.g. wearing protective clothing.
→ The footwear worn by operating staff must comply with EN ISO 20344. The measured insulation resistance must not exceed 100 Megaohms.
→ The protective clothing, including gloves, must comply with EN ISO 1149-5. The measured insulation resistance must not exceed 100 Megaohms.

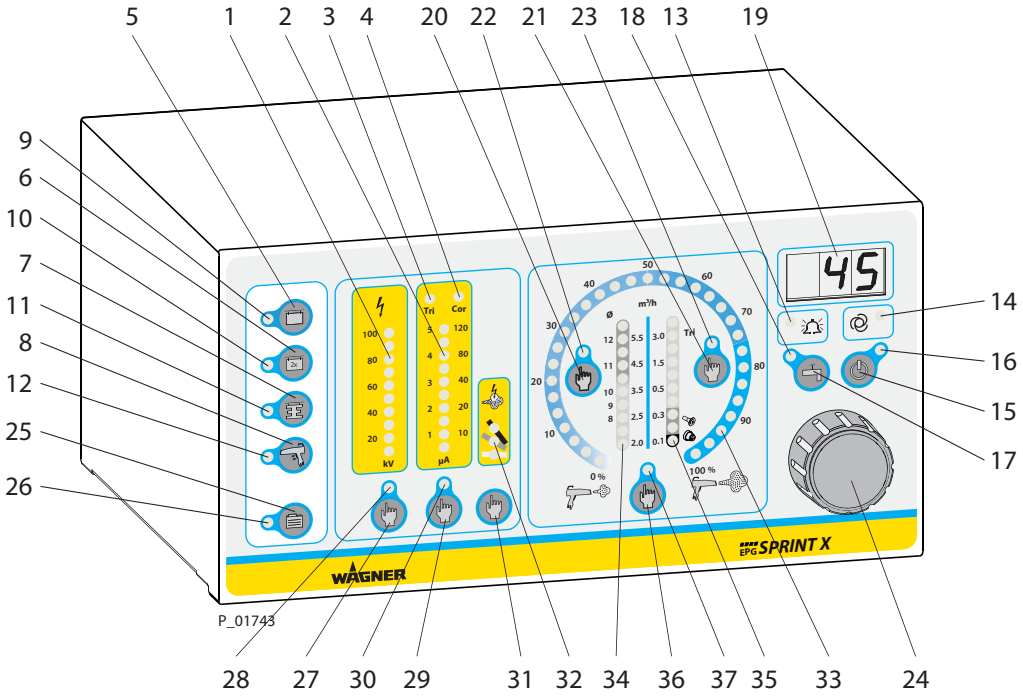
⚠ DANGER

High-voltage field!
Danger to life from heart pacemaker failure.

Make sure that persons with pace makers:
→ Do not work with the electrostatic spray gun.
→ Remain outside the area of the electrostatic spray gun/work piece.

CAUTION
Electrostatic discharges! → Avoid directly spraying the control unit and the trolley.

7.3 OPERATION OF THE CONTROL UNIT



1 Illuminated display: "High-voltage"

- Lights up green.
- Display range: 0-100 kV
  Resolution 10 kV
- Single LED display: preset value of high-voltage
- Bar graph LED: working voltage

2 Illuminated display: "Corona or Tribo Current"

- Lights up green.

Tribo scale:

- When a Tribo gun is connected and selected.
- Bar graph LED: When powder feed is activated.
- Display range: 0-5 µA
  Resolution 0.5 µA

Corona scale:

- When a Corona gun is connected and selected.
- Display and adjusting range: 0 [5]-120 µA,
  0 [5]-20 µA Resolution 5 µA
  20-40 µA Resolution 10 µA
  40-120 µA Resolution 20 µA
- Single LED display: application point of current limiting
- Bar graph LED: Corona current

3 Display: "Tribo Gun"
- Lights up when a Tribo gun is connected and selected.

4 Display: "Corona Gun"
- Lights up when a Corona gun is connected and selected.

5 Push button: recipe for "Surface Parts"

6 Push button: recipe for "Second Coating"

7 Push button: recipe for "Profiles"

8 Push button: recipe for "Double Click"
- To access the recipe, press the trigger lever on the spray gun twice in quick succession and hold down.

9 Display LED: recipe for "Surface Parts"
- Lights up green when the recipe for surface part is selected.

10 Display LED: recipe for "Second Coating"
- Lights up green when the recipe for second coating is selected.

11 Display LED: recipe for "Profiles"
- Lights up green when the recipe for profile part is selected.

12 Display LED: recipe for "Double Click"
- Lights up green, when the recipe for double click is selected.

13 Display LED: "Fault"
- Lights up, when there is a fault on the device.

14 Display LED: "Automatic Gun"
- Lights up, when an automatic gun is connected.

15 Push button: "Standby"
- To switch into standby mode.
- High voltage and powder feed cannot be activated in standby mode.
- To reactivate normal mode, press the button again.

16 Display LED: "Standby"
- Lights up when the unit is in standby mode.

17 Push button: "Purge"
- To activate the injector and the hose rinsing.

18 Display LED: "Purge"

- Lights up blue, when the purge function is activated.

19 Display LED: 7 segments, three-digit number

- Indicates the exact value depending on the activated function:
  "Total air volume; atomizing, ionizing and Tribo air; additional recipes; high voltage; current limiting; powder quantity".
- Display showing error number in the event of warnings and faults.

20 Push button: "Total Air Volume"

- To activate the function, the value is precisely adjusted with rotary controller 24 and is indicated in LED display 19.
- Adjusting range: 2-6 m^3/h
- Resolution: 0.05 m^3/h

21 Push button: "Atomizing, Ionizing and Tribo Air"

- To activate the function, the value is precisely adjusted with rotary controller 24 and is indicated in LED display 19.
- Adjusting range: 0.1-4 m^3/h
- Resolution: 0.05 m^3/h

22 Display LED: "Overall Air"

- Lights up yellow, when the setting "Overall Air" is selected.

23 Display LED: "Atomizing, Ionizing and Tribo Air"

- Lights up yellow, when the setting "Atomizing, Ionizing and Tribo Air" is selected.

24 Universal rotary controller

- Dynamic digital rotary controller with 32 positions per turn.
- Adjustment speed is proportional to rotational speed.
- Used to set: "total air volume; atomizer, ionizer and Tribo air; additional recipes; high voltage; current limiting; powder quantity".
- For setting parameter values in configuration mode.

25 Push button: "Additional Recipes"

- To activate the function, the additional recipes adjustment is set with Rotary Controller 24 and is indicated in LED Display 19.
- Selection of recipes 5 to 50.

26 Display LED: "Additional Recipes"

- Lights up yellow, when an additional recipe is selected.

27 Push button: "High-Voltage"

- To activate the function, the high voltage is set with Rotary Controller 24 and is indicated in LED Display 19.
- Adjusting range: 10-100 kV
- Resolution: 1 kV

28 Display LED: "High-Voltage"

- Lights up yellow. The high-voltage is selected and can be adjusted using Rotary Controller 24.

29 Push button: "Current Limiting"

- To activate the function, the current limiting is set with Rotary Controller 24 and is indicated in LED Display 19.
- Adjusting range: 5-120 µA
- Resolution: 1 µA

30 Display LED: "Current Limiting"

- Lights up yellow. The current limiting is selected and can be adjusted using Rotary Controller 24.

31 Push button: "Characteristic Slope"

- To switch the characteristic slope.
- Display with LED 32.

32 Display LED: "Characteristic Slope"

- Lights up green.
- Lower LED characteristic curve, flat.
- Middle LED characteristic curve, medium.
- Upper LED characteristic curve, steep.

33 Illuminated display: "Powder Quantity"

- Lights up green.
- Display range: 0-100%
- Resolution: 3.33%
- Single LED display: Set point (high-voltage and powder are deactivated).
- Bar graph LED: Actual value (high-voltage and powder are activated).

34 Illuminated display: "Total Air Volume"

- Lights up green.
- Display range: 2-6 m^3/h
- Resolution: 0.2-0.5 m^3/h
- Single LED display: Set point (high-voltage and powder are deactivated).
- Bar graph LED: Actual value (high-voltage and powder are activated).

35 Illuminated display: "Atomizing, Ionizing and Tribo Air Volume"

- Lights up green.
- Display range: 0.1-4 m^3/h
- Resolution: 0.1-1.0 m^3/h
- Single LED display: Set point (high-voltage and powder are deactivated).
- Bar graph LED: Actual value (high-voltage and powder are activated).

36 Push button: "Powder Quantity"

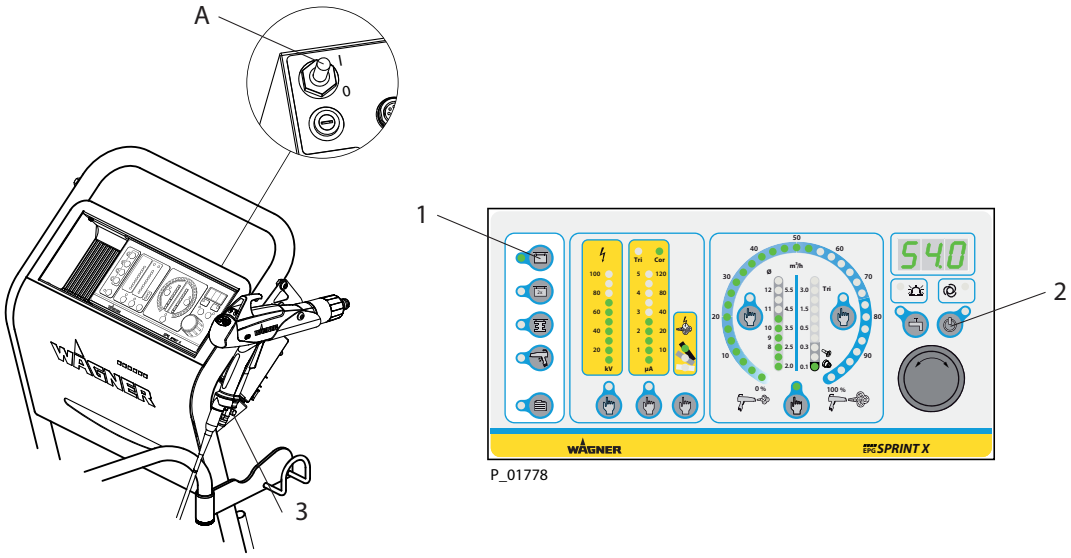
- To activate the function, the powder quantity is set with Rotary Controller 24 and is indicated in LED Display 19.
- Adjusting range: 1-100%
- Resolution: 1%

37 Display LED: "Powder Quantity"

- Lights up yellow, when the powder quantity is selected.

7.4 STARTING UP THE MANUAL SYSTEM

7.4.1 SWITCHING ON THE MANUAL SYSTEM



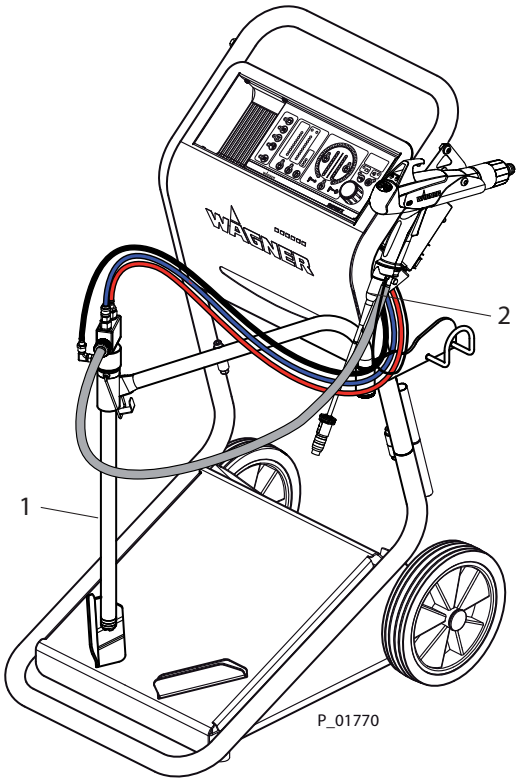
To turn the power supply of the manual powder system on, set the mains switch on the back side A of the control unit to position "I".

- After a few seconds the control unit is operational.
- The system switches to recipe 1 "Surface parts" after every restart.
- To switch the manual system off or on, actuate the "Standby" push button 2.

Note:

- The fluid air must be adjusted using throttle 3, when commissioning the manual system.
- The control unit automatically recognizes the type of gun connected.
- There are 50 recipes available for the spray gun.
- When a Tribo gun is connected, the Tribo current scale is activated, while the high-voltage supply and control unit are deactivated.
- All airs are only switched on once the trigger has been operated.

7.4.2 ADJUSTING FLUIDIZATION (AIRFLUID)



Procedure:

1. Swivel the feed unit 1 to the right side.
2. Place an opened powder container (25-30 kg; 55.11-66.14 lbs) on the vibrator table.
3. Switch on control unit.
4. Swivel the feed system 1 into the powder container and lower it the surface of the powder. Actuate the trigger of the spray gun for a short time and release it. The vibrator motor and the fluid air overrun for 10 s (factory setting). This setting can be changed if required by the user (see operating manual "EPG-Sprint X")
5. Adjust the fluid air at throttle 2 to the point that makes the feed system sinks into the powder due to its own weight.

Note:

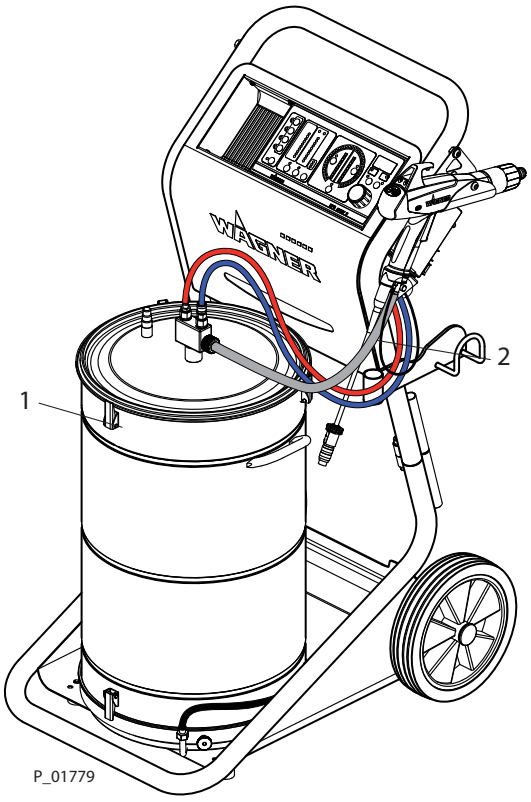
- The amount of fluid air depends on the characteristics of the powder.
- The powder should be moving in the suction area of the feed system (gently simmering).
- Avoid dust build up in the powder container.

7.4.3 ADJUSTING FLUIDIZATION (60 L CONTAINER WITHOUT VIBRATOR TABLE)

⚠ WARNING

Dust formation!
Danger of poisoning.
Danger due to escaping dust, contamination of device and device components.

→ Only fill the powder container up to the halfway mark, because fluidizing increases the powder volume.



Procedure:

1. Open the lid and fill powder container 1 halfway with powder.
2. Switch on control unit.
3. Set the parameter "Vibrator motor control" on the control unit to "ON" to permanently activate the fluid air, see operating manual of the EPG-Sprint X control unit).
4. Actuate the trigger of the spray gun for a short time and release it.
5. Adjust the fluid air at the throttle 2 until fluidization is recognizable.

Note:

The amount of fluid air depends on the characteristics of the powder. Avoid a build up of powder dust (too much fluid air) in the powder container!

6. Close powder container 1 and check whether the exhaust air hose is leading in the direction of the ventilation system of the powder coating booth.

Note:
We recommend using a vibrator table when working with powders that are difficult to feed (see chapter 12.12).

7.5 RECIPES NOS. 1-4 FACTORY SETTINGS

The following set values are stored in recipe Nos. 1-4 in the factory.

Recipe No.	Description	Characteristic	High-voltage [kV]	Current limiting [µA]	Characteristic curve:	Overall air [m³/h]	Feed air [%]	Atomizer air [m³/h]
P01	Flat part	High surfaces performance	90	80	Standard	4.0	70	0.1
P02	Second coating Layering	Avoidance of spraying back	50	20	soft	3.6	57	0.1
P03	Profile part	Penetration and reduced build-up of edges	70	40	soft	3.6	50	0.1
P04	Double click	Small components	80	20	soft	3.6	45	0.1
P05-50	variable	individual	80	100	Standard	4.5	80	0.1

Notes:
Under normal conditions, metallic powder can be processed well using recipes Nos.1-4.
When operating the system with a Tribo gun, the values for overall air, powder flow and Tribo air must be adjusted accordingly and saved.
With the 3 L container variant, the values must also be adjusted individually and saved.

7.6 INTERRUPTING THE COATING PROCESS

7.6.1 AIRFLUID VERSION

NOTICE

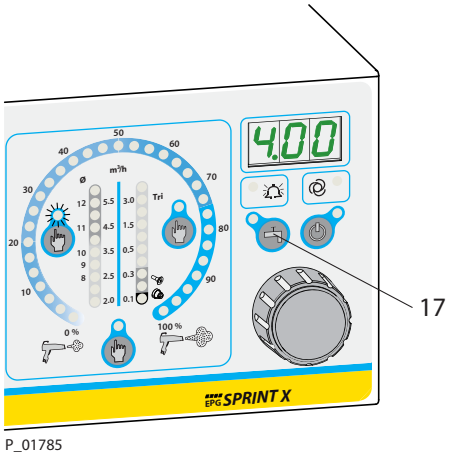
Danger of clogging the fluid disk!
Danger of blockage.

→ Before the control unit is deactivated, the feed system must be pulled out of the powder container.

NOTICE

Powder residues!
Danger of equipment damage.

→ At every work interruption, blow through the spray gun and the powder feed components and clean from any powder residues.



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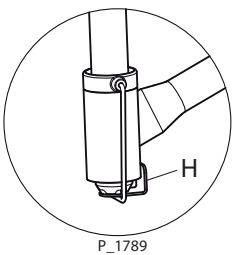


P_1789

Procedure:

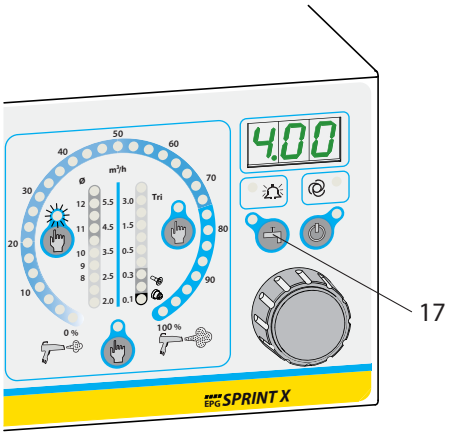
1. Release the trigger on the spray gun.
   - The high-voltage and the powder feed are deactivated.
2. Lift the feed unit up, underneath the injector, and lift it out of the container until retaining clamp H swivels downwards.
3. Lower the feed system into the parking position and swivel it to the right side so that no more powder is forwarded.
4. Guide the gun into the spray booth and start the purge function by pressing "Purge" Button 1. The injector and hoses are purged.
5. Now the control unit can be switched off.

7.6.2 60 L CONTAINER VERSION

NOTICE

Powder residues!
Danger of equipment damage.

→ At every work interruption, blow through the spray gun and the powder feed components and clean any powder residues.



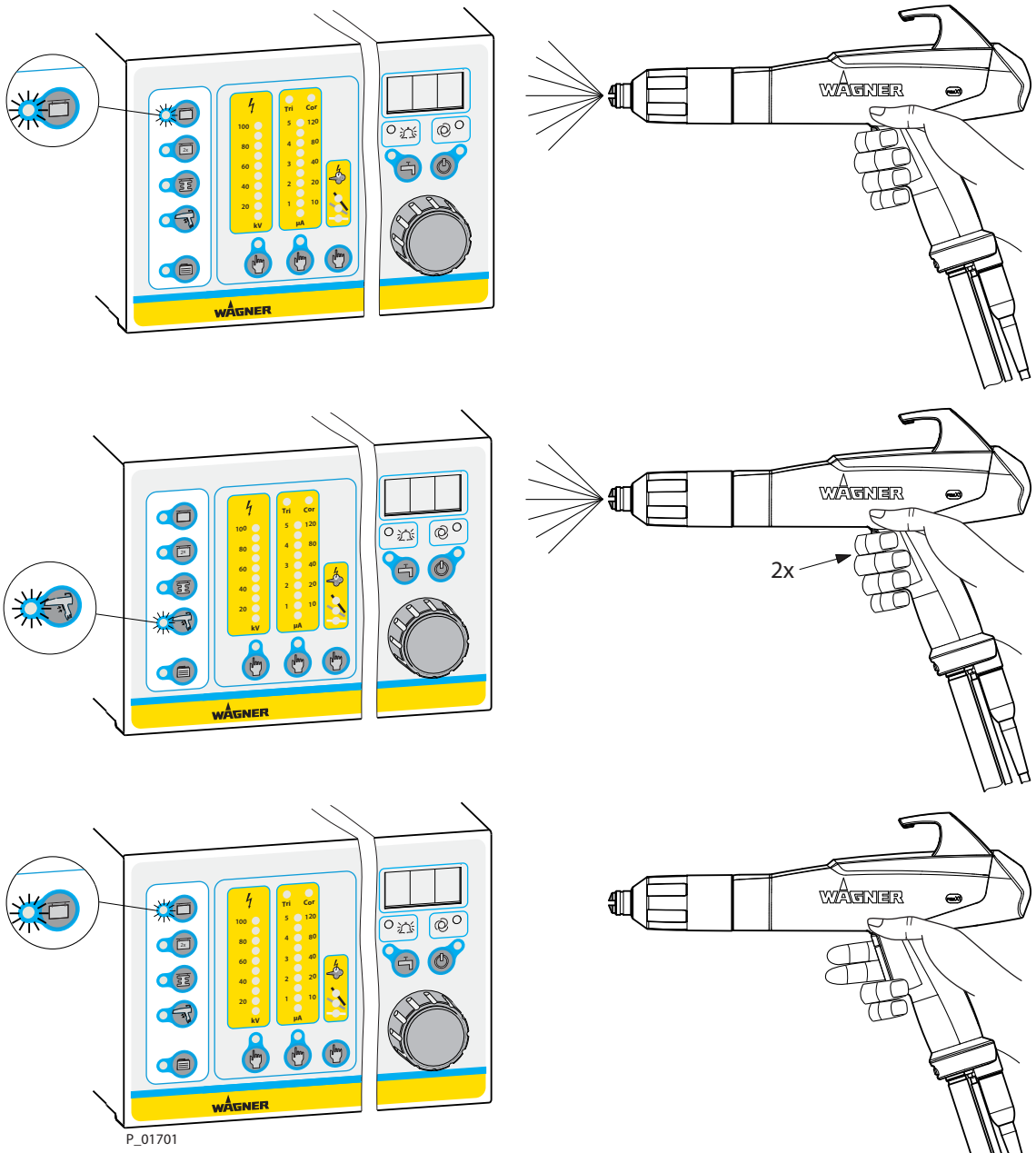
P_01785

Procedure:

1. Release the trigger on the spray gun.
   - The high-voltage and the powder feed are deactivated.
2. Remove the injector from the holder to stop powder feed.
3. Guide the gun into the spray booth and start the purge function by pressing "Purge" Button 1. The injector and hoses are purged.
4. Switch off control unit.

7.7 "DOUBLE CLICK" RECIPE (HIGH DYNAMIC REMOTE)

This function is used to change quickly to another recipe during a coating operation. The operator can access a previously set recipe by double-clicking on the trigger lever on the spray gun, for example to recoat parts using different parameters (high-voltage, current limiting, air volumes etc.)
To access the function, press the trigger lever on the spray gun twice in quick succession and hold down. Upon releasing the trigger, the original recipe will be returned to.



P_01701

8 CLEANING AND MAINTENANCE

8.1 CLEANING

8.1.1 CLEANING STAFF

Cleaning work should be regularly and carefully undertaken by qualified and trained staff. The staff must be familiar with the DIN EN 50050-2 and DIN EN 50177 provisions. They should be informed of specific hazards during their training.

The following hazards may arise during cleaning work:

- Health hazard from inhaling powder paint
- Use of unsuitable cleaning tools and aids

8.1.2 SAFETY INSTRUCTIONS

⚠ DANGER

Explosive powder/air mixes!
Danger to life and equipment damage.

→ Before starting cleaning or other manual work, the high-voltage must be shut down and locked to prevent it from being switched back on!
→ The spray gun must be separated from the high-voltage supply before any cleaning work is started!
→ Use only electrically conductive containers for cleaning liquids! Ground the containers!
→ Preference should be given to non-flammable cleaning fluids.
→ Flammable cleaning fluids may only be used if, once the high-voltage has been switched off and all parts carrying high-voltage are discharged to a discharge energy of less than 0,24 mJ before they can be reached.
Most flammable solvents have a firing power of around 24 mJ or 60 nC.
→ The cleaning agent's flash point must be at least 15 K above the ambient temperature.
→ Only mobile industrial vacuum cleaners of design 1 (see EN 60335-2) may be used to remove dust deposits.

⚠ WARNING

Incorrect Maintenance!
Risk of injury and damage to the equipment.

→ If contact with powder materials or cleaning agents causes skin irritation, appropriate precautionary measures must be taken, e.g. wearing protective clothing.
→ The footwear worn by operating staff must comply with EN ISO 20344. The measured insulation resistance must not exceed 100 Megaohms.
→ The protective clothing, including gloves, must comply with EN ISO 1149-5. The measured insulation resistance must not exceed 100 Megaohms.

8.1.3 CLEANING PROCEDURES

The cleaning intervals should be adapted by the operator depending on the level of use and if necessary the level of soiling.
In doubt, we recommend contacting J. Wagner AG's specialist personnel.
The valid health and safety specifications and the safety instructions provided in chapter 4 must be adhered to for all cleaning work.

8.2 MAINTENANCE

8.2.1 MAINTENANCE STAFF

Maintenance work should be regularly and carefully undertaken by qualified and trained staff. They should be informed of specific hazards during their training.

The following hazards may arise during maintenance work:

- Health hazard from inhaling powder paint
- Use of unsuitable tools and aids

Once the maintenance work is complete, the device must be checked by a qualified person to ensure a reliable condition.

8.2.2 SAFETY INSTRUCTIONS

DANGER

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

→ Repair or replacement of devices or parts of devices may only be performed outside the hazard area by specialist personnel.

DANGER

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

→ Have repairs and part replacements be carried out by specially trained staff or a WAGNER service center.
→ Before all work on the unit and in the event of work interruptions:
- Switch off the energy/compressed air supply.
- Decompress spray gun and device pressure.
- Secure the spray gun against actuation.
→ Observe the operating and service instructions when carrying out all work.

⚠ WARNING

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

→ If contact with powder materials or cleaning agents causes skin irritation, appropriate precautionary measures must be taken, e.g. wearing protective clothing.
→ The footwear worn by operating staff must comply with EN ISO 20344. The measured insulation resistance must not exceed 100 Megaohms.
→ The protective clothing, including gloves, must comply with EN ISO 1149-5. The measured insulation resistance must not exceed 100 Megaohms.

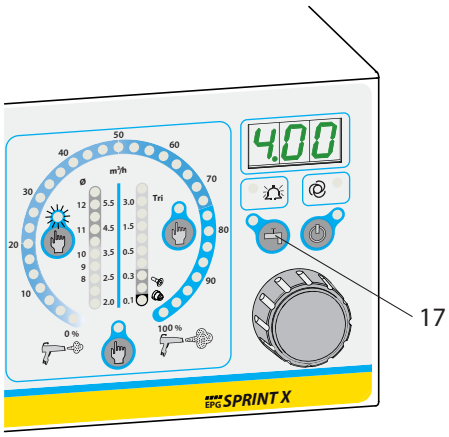
8.2.3 MAINTENANCE PROCEDURES

The maintenance intervals should be adapted by the operator depending on the level of use and if necessary the level of soiling.
In doubt, we recommend contacting J. Wagner AG's specialist personnel.
The valid health and safety specifications and safety instructions provided in chapter 4 must be adhered to for all maintenance work.

Maintenance work	Point in time	
	Per shift	Weekly
Blow out gun and check for sintering	x	
Check gun settings	x	
Check gun discharge pressure	x	
Blow out powder hoses	x	
Check grounding		x
Check compressed air quality		x
Check gun voltage		x
Check powder hoses for bends and sintering		x

8.3 PERIODICALLY CHECK AND CLEAN THE MANUAL POWDER SYSTEM

8.3.1 AIRFLUID VERSION



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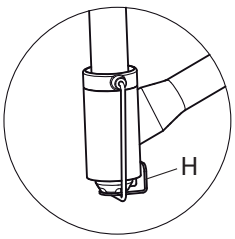

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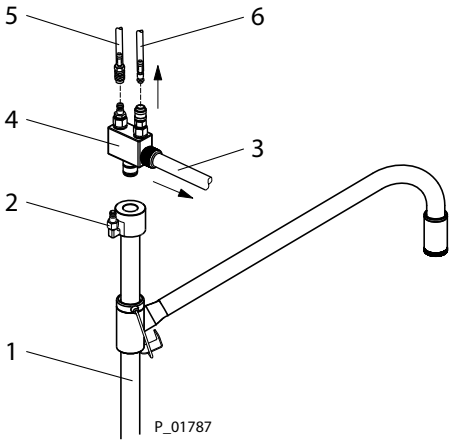


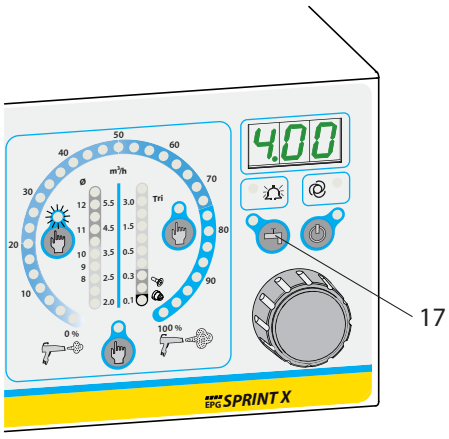
P_01787

Procedure:

1. Release the trigger on the spray gun.
   - The high-voltage and the powder feed are deactivated.
2. Lift the feed unit up, underneath the injector, and lift it out of the container until retaining clamp H swivels downwards.
3. Lower the feed system into the parking position and swivel it to the right side so that no more powder is forwarded.
4. Guide the gun into the spray booth and start the purge function by pressing "Purge" button 17. The injector and hoses are purged.
5. Switch off control unit.
6. Release the outer nut on powder feed hose 3 and disconnect powder feed hose 3 from injector 4.
7. Disconnect powder feed hose 5 (red) from injector 4.
8. Disconnect dosage air hose 6 (blue) from injector 4.
9. Pull the fluid air hose (black) off suction connector 2.
10. Pull injector 4 out of feed unit 1.
11. Check injector 4 for wear and replace worn parts if necessary.

    The wearing and spare parts can be found in the operating manual of the powder injector.
12. Pull feed unit 1 out of the holder arm.
13. Blow out the suction tube of the feed unit 1 thoroughly and rub it clean with a dry cloth.
14. Check whether the fluid disk on the bottom of the feed unit is blocked and replace if necessary.

8.3.2 60 L CONTAINER VERSION



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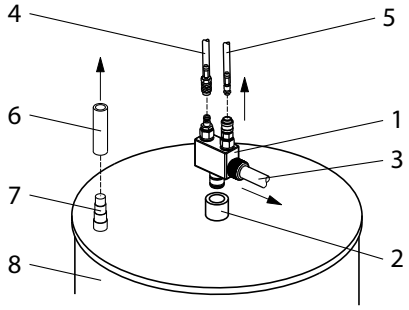

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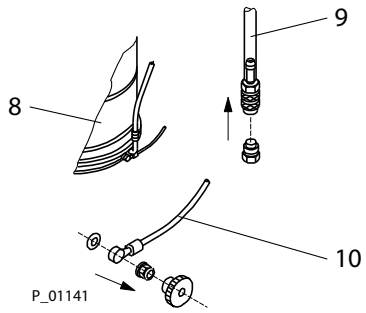


P_01141

Procedure:

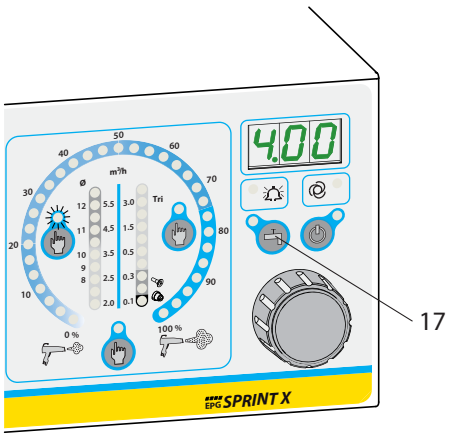
1. Release the trigger on the spray gun.
   - The high-voltage and the powder feed are deactivated.
2. Remove injector 1 from holder 2.
3. Guide the gun into the spray booth and start the purge function by pressing "Purge" Button 1. The injector and hoses are purged.
4. Switch off control unit.
5. Release the outer nut on powder feed hose 3 and disconnect powder feed hose 3 from injector 1.
6. Disconnect the red feed air hose 4 from injector 1.
7. Disconnect the blue dosage air hose 5 from the injector 1.
8. Check the powder injector for wear and replace worn parts. The wear and spare parts can be found in the operating manual of the powder injector.
9. Loosen exhaust air hose 6 from connection 7 of powder container 8.
10. Remove the black fluid air hose 9 from powder container 8.
11. Loosen grounding cable 10 from powder container 8.
12. Lift the powder container in order to clean the equipment trolley.
13. Take the lid of the powder container off, empty the powder container and blow out the powder container thoroughly.
14. Completely remove all residual powder from the suction system.

15 Pay special attention when cleaning the fluid base, check it for blockage or damage and replace it if necessary.

The wearing and spare parts are in the chapter "Spare Parts" of this operating manual.

8.4 PERFORMING A COLOR CHANGE (AIRFLUID)

Note:
For a color change, all components of the powder feed system must be thoroughly cleaned.



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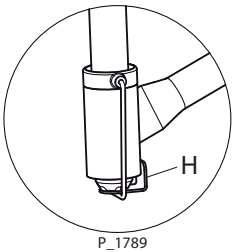


P_1789

Procedure:

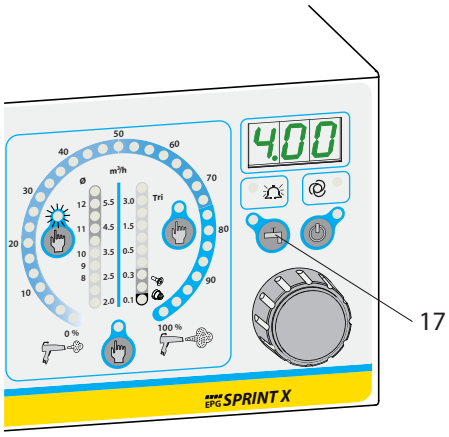
1. Release the trigger on the spray gun.
   - The high-voltage and the powder feed are deactivated.
2. Lift the feed unit up underneath the injector and lift it out of the container until the retaining clamp H swivels downwards.
3. Lower the feed system into the parking position and swivel it to the right side so that no more powder is forwarded.
4. Guide the gun into the spray booth and start the purge function by pressing "Purge" Button 1. The injector and hoses are purged.
5. Switch off control unit.
6. Clean all powder feeding parts of the unit, such as the spray gun, the injector and the powder feed hose.
7. Place an opened powder container (25-30 kg; 55.11-66.14 lbs) with powder on the vibrator table.
8. Swivel retaining clamp H away, lower the feed unit to the powder surface, actuate the trigger of the spray gun for a short time and then release it.
9. Adjust the fluid air at the throttle to the point that the feed unit sinks into the powder due to its own weight.

To adapt the programs to the new applications proceed as described in the EPG-Sprint X control unit's operating manual.

8.5 PERFORMING A COLOR CHANGE (60 L CONTAINER)

8.5.1 CLEANING PROCESS WHEN USING A SINGLE POWDER CONTAINER

Note:
For a color change, all components of the powder feed system must be thoroughly cleaned.



P_01785

Procedure:

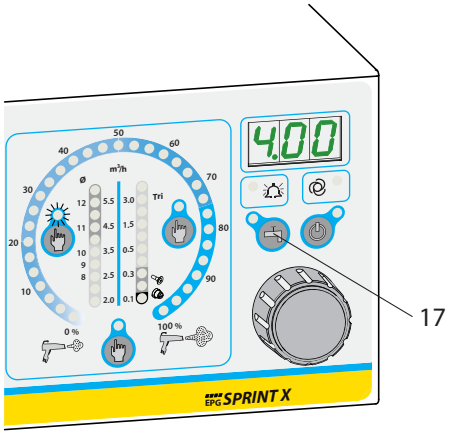
1. Release the trigger on the spray gun.
   - The high-voltage and the powder feed are deactivated.
2. Remove the injector from the holder to stop powder feed.
3. Guide the gun into the spray booth and start the purge function by pressing "Purge" Button 1. The injector and hoses are purged.
4. Switch off control unit.
5. Open the powder container and clean all powder feeding parts of the unit,

   such as the spray gun, the injector, the powder feed hose and the suction system.
6. Clean the powder container and pay special attention to the fluid base.

Note:
Proper fluidization is not possible with a damaged and/or clogged fluid base.

To adapt the programs to the new applications proceed as described in the EPG-Sprint X control unit's operating manual.

8.5.2 CLEANING PROCESS WHEN USING MULTIPLE POWDER CONTAINERS (60 L CONTAINER)



P_01785

Procedure:

1. Release the trigger on the spray gun.
   - The high-voltage and the powder feed are deactivated.
2. Remove the injector from the holder to stop powder feed.
3. Guide the gun into the spray booth and start the purge function by pressing "Purge" Button 17. The injector and hoses are purged.
4. Switch off control unit.
5. Loosen the powder feed hose from the powder injector and clean the spray gun and the powder feed hose thoroughly.
6. Loosen the blue dosage air hose and the red feed air hose from the powder injector.
7. Disconnect the black fluid air hose from the powder container.
8. Loosen the grounding cable from the powder container.
9. Replace the powder container.
10. Reconnect all the hoses and ground the powder container by connecting to the grounding cable.

Note:
Proper fluidization is not possible with a damaged and/or clogged fluid base.

8.5.3 RESTARTING THE MANUAL POWDER SYSTEM

Procedure:

1. Check if the control unit is switched off.
2. Open the powder container and fill it halfway with powder.

⚠ WARNING

Dust formation!
Danger of poisoning.
Danger due to escaping dust, contamination of device and device components.

→ Only fill the powder container up to the halfway mark, because fluidization increases the powder volume.

3. Switch on the control unit and activate the "Powder feed quantity" function by pressing "Powder Quantity" button 36.
4. Adjust the powder quantity to 0% with Universal Rotary Controller 24.
5. Actuate the trigger and keep it actuated.
6. Adjust the fluid air at the throttle until fluidization is recognizable.

Note:

The amount of fluid air depends on the characteristics of the powder. Avoid a build up of powder dust (too much fluid air) in the powder container!

7. Close the powder container and check whether the exhaust air hose is leading in the direction of the ventilation system of the powder coating booth.

To adapt programs to the new applications, proceed as described in the EPG-Sprint X control unit's operating manual.

9 INSPECTIONS IN ACCORDANCE WITH DIN EN 50177: 2010

If the system is used for electrostatic coating with flammable coating powders, testing should be undertaken in accordance with DIN EN 50177: 2010-04 as per Table 3 and Table 4.

9.1 OVERVIEW OF INSPECTIONS

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
1	Effectiveness of technical ventilation check	Effectiveness of technical ventilation check	UP/BP	ME Measurements of air flow speed / air quantities. Check the differential pressure indicator.	Continuously
2	Interlock between technical ventilation and high-voltage, compressed air and coating material supply	The technical ventilation should be interlocked such that the high-voltage cannot be switched on while the technical ventilation is not working effectively.	BP	FU Test whether the system is safely stopped and the material supply, supply air and high-voltage are switched off when the ventilation is shut down.	Annually
3	Effectiveness of grounding measures	All the system's conductive elements, such as floors, walls, ceilings, protective grating, transport equipment, work pieces, powder containers, machines or construction parts etc. in the spray area, with the exception of parts which carry high-voltage during operation, must be connected to the grounding system. Parts of the booth must be grounded in accordance with EN 12215.	BP	SI/ME/SÜ Visual check of ground connections, perform function test on grounding switch, measurement of grounding resistors.	Weekly

Key:
HE = Manufacturer
AG = Employer
BP = Capable person
BSB = Fire safety engineer
EFK = Electrician
UP = Trained person

FU = Function inspection
ME = Measurement
OP = Standard inspection
SI = Visual inspection
SÜ = Continuous inspection
TP = Technical inspection

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
4	Measures to take if conductive components are insufficiently grounded	If sufficient grounding of conductive parts cannot be ensured, their discharge energy must not exceed the permissible value.	BP	ME/SÜ Measurement of discharge energy.	Weekly
5	Resistance to ground of work piece's locating point	The resistance to ground of every work piece's locating point must not exceed 1 megaohm (measurement voltage must be 1000 V). The design of the work piece receiver must ensure that the adapters remain grounded during coating.	BP	ME/SÜ Measure resistance to ground (work piece receiver - ground potential) max. 1 MOhm @ 1000 V.	Weekly
Key: HE = Manufacturer AG = Employer BP = Capable person BSB = Fire safety engineer EFK = Electrician UP = Trained person			FU = Function inspection ME = Measurement OP = Standard inspection SI = Visual inspection SÜ = Continuous inspection TP = Technical inspection		

Section	Type of inspection	Requirements	Inspection by	Type of inspection	Inspection interval
6	Measures to take if the work pieces are insufficiently grounded	If sufficient work piece grounding in accordance with section 6 cannot be ensured, appropriate equipment, e.g. ionizers, may be used to discharge electric charges on the work piece. Such equipment must not exceed the permitted discharge energy of the spray systems with which it is used. In terms of permitted discharge energy, this equipment must be put through the same inspections as the powder spray systems used with it. The discharge equipment must be interlocked with the spray system such that the high-voltage is switched off and that coating cannot take place if the discharge equipment malfunctions.	BP	ME/FU/SÜ Measurement of discharge energy, check the monitoring equipment's test function by triggering it.	Weekly
7	Effectiveness of the manually or automatically actuated fire extinguishing systems (room protection system)	Effectiveness of the manually or automatically actuated fire extinguishing systems (room protection system).	HE/BSB	FU Trigger fire extinguishing system, observe manufacturer's requirements.	6 months

Key:

HE = Manufacturer
AG = Employer
BP = Capable person
BSB = Fire safety engineer
EFK = Electrician
UP = Trained person

FU = Function inspection
ME = Measurement
OP = Standard inspection
SI = Visual inspection
SÜ = Continuous inspection
TP = Technical inspection

10 DISASSEMBLY AND DISPOSAL

10.1 DISASSEMBLY

⚠ WARNING

Incorrect disassembly!
Risk of injury and damage to the equipment.

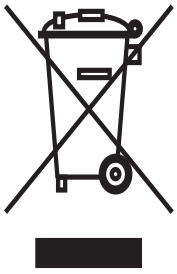
→ Before starting disassembly:
- Switch off the energy/compressed air supply.
- Ensure that all system components are grounded.
- Secure system against being switched back on without authorization.

→ Observe the operating manual when carrying out all work.

Procedure:

1. Switch off the system.
2. Pull the connection cable out from socket.
3. Lock the supply of compressed air and decompress system.
4. Separate the connection cable from the compressed air supply.
5. Separate the grounding cable from the system ground.

10.2 DISPOSAL



NOTICE

Do not dispose of used electrical equipment with household refuse!
In accordance with European Directive 2002/96/EC on the disposal of used electrical equipment and its implementation in national law, this product may not be disposed of with the household refuse, but must be recycled in an environmentally correct manner.
Wagner, or one of our dealers, will take back your used Wagner equipment and will dispose of it for you in an environmentally friendly way. Please contact one of our service points, one of our representatives, or us directly to arrange this.

11 TROUBLESHOOTING AND RECTIFICATION

DANGER

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

→ Have repairs and part replacements be carried out by specially trained staff or a WAGNER service center.
→ Before all work on the unit and in the event of work interruptions:
- Switch off the energy/compressed air supply.
- Decompress spray gun and device pressure.
- Secure the spray gun against actuation.
→ Observe the operating and service instructions when carrying out all work.

DANGER

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

→ Wagner devices, protective systems and safety, monitoring and control equipment may only be repaired as defined in Directive 94/9/EC (ATEX) by trained Wagner service personnel or capable persons in accordance with TRBS 1203! Note national regulations!
→ Repair or replacement of devices or parts of devices may only be performed outside the hazard area!

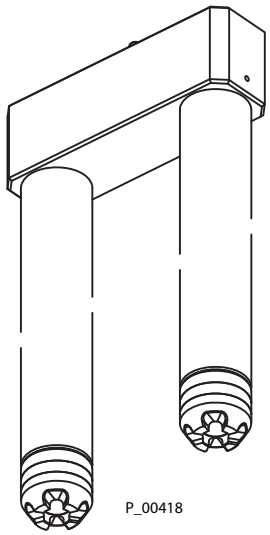
11.1 FAULTS AT THE MANUAL SYSTEM

Malfunction	Cause	Remedy
Power indicator does not light up No Corona power supply	• Mains not switched on.	• Turn on mains.
	• 1 AT fuses defective.	• Replace fuses.
	• The connection cable to the powder spray gun is interrupted.	• To replace the connection cable, notify Wagner services or your qualified personnel.
	• The powder spray gun is too close to the work piece.	• Switch off the high-voltage, increase the distance between the spray gun and the work piece and then switch the high-voltage on again. Should an error message be displayed again, inform the Wagner service center.
	• The grounding between control unit and powder spray gun is interrupted.	• Inform Wagner service center.
Sputtering powder feed	• The flow rate in the powder feed hose is too low.	• Increase the total feed and dosage air and readjust the ratio of the airs to each other.
	• Cross section of the powder feed hose reduced by movement.	• Use a powder hose that prevents the cross section from narrowing (Select a hose with a thicker wall.).
	• Fluctuations in the compressed air caused by short-term increase of the compressed air consumption in the supply system.	• Install compressed air storage directly in front of high consumption system components.
Dust buildup above the container or the powder container	• Too much fluid air.	• Reduce the fluid air at the throttle.
	• The throttle is not connected to the fluid air connection of the control unit.	• Connect the throttle to the fluid air connection of the control unit and readjust the fluid air volume.
Bad wrap around, back-spray	• Insufficient grounding.	• Make sure that all components are well grounded, see Chapter 6.7 "Grounding".

Malfunction	Cause	Remedy
No powder feed	• Container or powder container empty.	• Refill powder.
	• The spray gun is clogged.	• Blow through the spray gun.
	• The powder feed hose is clogged.	• Blow through the powder feed hose.
	• The powder suction system in the powder container is clogged.	• Blow through the powder suction system.
	• The feed air hose is bent.	• Straighten or replace the feed air hose.
	• The powder feed hose is bent.	• Straighten or replace the powder feed hose.
The feed unit does not sink into the powder.	• The guide of the feed unit holder is jammed.	• Enable the guide to move smoothly.

12 ACCESSORIES

12.1 FEED SYSTEM SN-2 550/10



Order No.	Description
265272	Feed system SN-2 550/10

12.2 MAINTENANCE UNIT

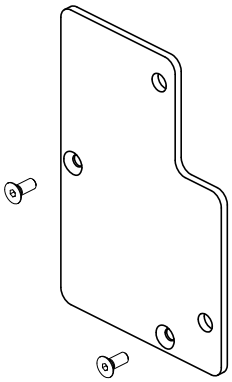
Order No.	Description
2314265	Maintenance unit
2314308	Filter cartridge (spare part)
2314309	Fine-filter cartridge (spare part)

12.3 QUICK COUPLING SET


P_01353

Order No.	Description
2312543	Quick coupling set
935658	Compressed air hose ∅ 9.5 mm

12.4 ADAPTER PLATE SWITCH BOX


P_01158

Order No.	Description
2308079	Adapter plate switch box

12.5 SPRAY GUN SWITCH BOX

P_00670

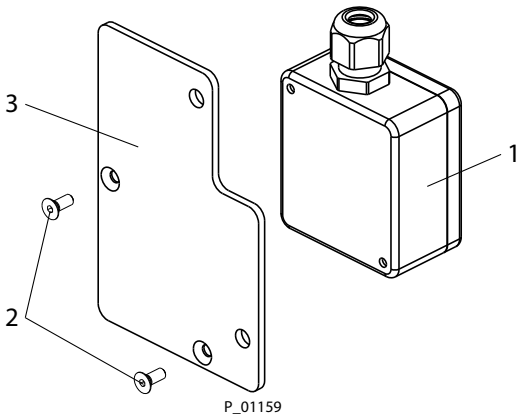
Order No.	Description
265911	Spray gun switch box When alternately a Corona or a Tribo gun is operated
2313993	Hose (black, ∅ 4x6 mm)

12.5.1 INSTALLATION OF THE SWITCH BOX

⚠ WARNING

Danger from electric current!
Risk of injury and damage to the equipment.

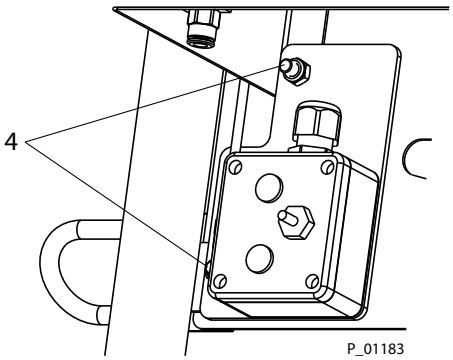
→ Before starting with the installation of the switch box, the manual powder system must be switched off and the mains plug disconnected.



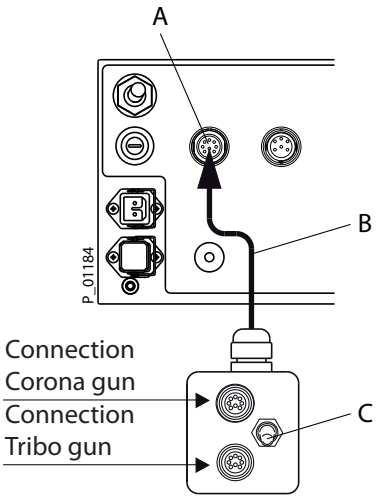
P_01159

Procedure:

1. Screw switch box 1 with screws 2 to adapter plate 3.



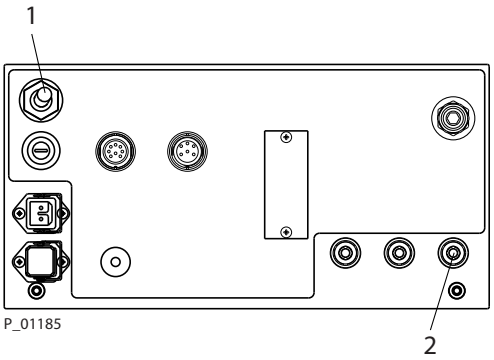
2. Use screws 4 to screw adapter plate with fitted switch box onto the back side of trolley's front plate.



3. Pull the spray gun cable out of socket A on the control unit.
4. Plug electrical cable B of the switch box into socket A on the control unit and secure it with the protective sleeve.
5. Connect the spray gun to the appropriate connection on the switch box and secure it with the protective sleeve of the spray gun cable.
6. Set switch C on the switch box to the desired spray gun type.

12.5.2 SWITCHING THE GUN TYPES

Note:
Clean the powder residues from all powder-conveying parts thoroughly, before changing to another gun type.

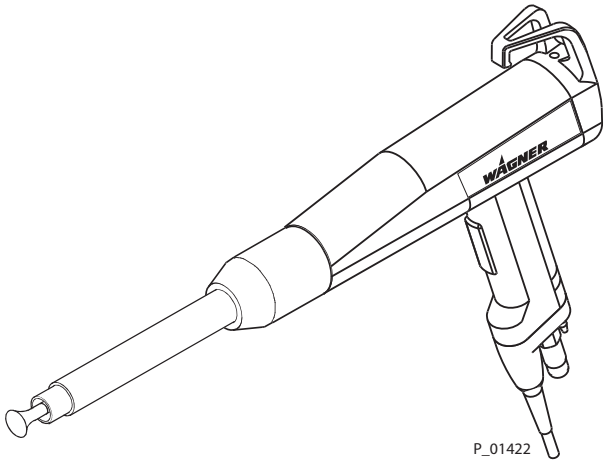


Procedure:
(For example: switching from Corona to Tribo)

1. Switch off control unit with Switch 1 on the back side.
2. Change the coating powder from Corona to Tribo.
3. Disconnect hose 2 (transparent, atomizing air) from the Corona gun and connect it to the Tribo gun (Tribo air).
4. Disconnect the powder feed hose of the Corona spray gun from the powder injector and connect the Tribo gun hose to the powder injector.
5. Set switch C on the switch box to Tribo.

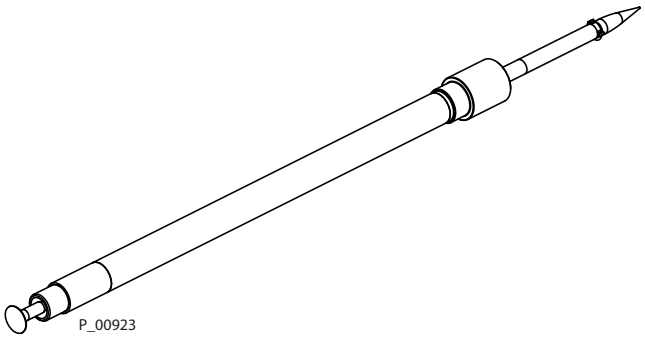
Note:
Parameter C11, in the EPG-Sprint X control unit device configuration, must be set to "aut". No gun is selected at first after the control unit is switched on. This will however be automatically selected and displayed after 1 second.

12.6 PEM-T3 MANUAL GUN



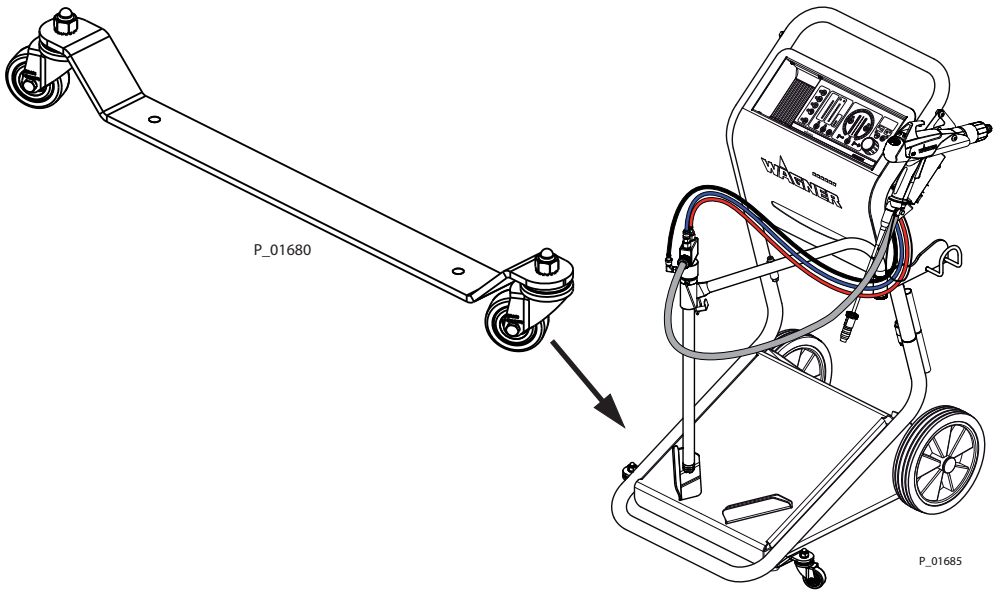
Order No.	Description
351019	PEM-T3 Tribo manual gun

12.7 PEM-T3 300 EXTENSION



Order No.	Description
260934	PEM-T3 300 extension

12.8 SWIVEL CASTERS SET



Order No.	Description
2324869	Swivel casters set

12.9 POWDER HOSE

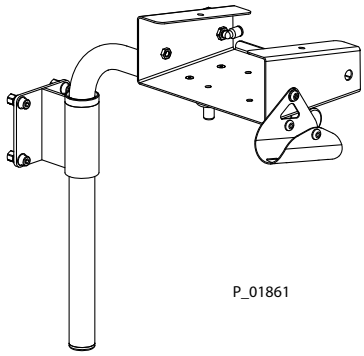
Order No.	Description
351794	Powder hose ∅ 9 mm
2310699	Powder hose ∅ 10 mm
2307502	Powder hose ∅ 11 mm
2310700	Powder hose ∅ 12 mm

12.10 SPRINT DUAL MANUAL COATING SET

This accessory is used to operate two manual guns with the manual system.
The set consists of the control unit, the manual spray gun, a feed unit and different connecting parts and cables.

Order No.	Description
2331471	Sprint dual manual coating set

12.11 WALL MOUNT

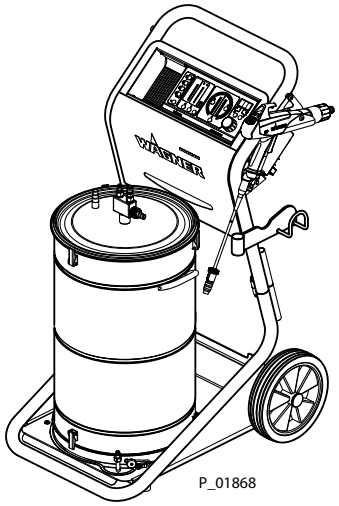


Order No.	Description
2330223	Wall mount with bracket

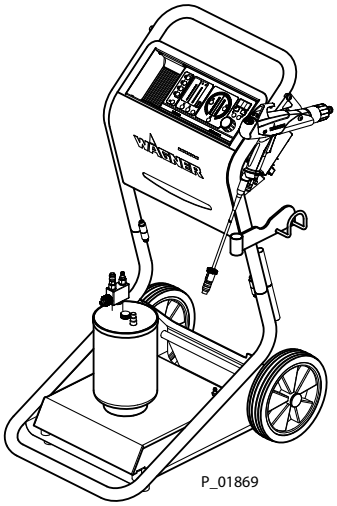
12.12 CONVERSION SETS

When working with powders that are difficult to feed, the manual system can be converted into a variant with a vibrator table.

Order No.	Description
2309276	Sprint 60 L V conversion set
2309277	Sprint 3 L V conversion set

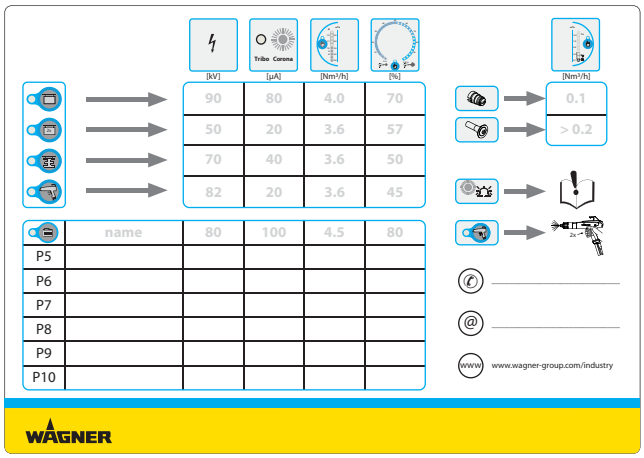


Sprint 60 L V



Sprint 3 L V

12.13 RECIPE STICKER



P_01829

Order No.	Designation
2331223	Recipe sticker

12.14 EXTENDED OPERATING MANUALS

If additional information regarding the individual components is desired, the operating manuals listed below can be resorted to. These operating manuals are saved on the provided CD.

This extended operating manual includes:

- important instructions that are necessary for connection, start-up and operation (e.g. color change) of the relevant components,
- the very important chapter "Maintenance and Cleaning" for the relevant components,
- troubleshooting and error correction for the relevant components,
- spare parts, wearing parts and accessories.

Description	Operating manual	Language
EPG-Sprint X control unit	2327591	German
	2329371	English
PI-F1 powder injector	241890	German
	241891	English
Hicoat ED-Pump F powder injector	241885	German
	241886	English
PEM-X1 manual gun	2326019	German
	2326020	English
PEM-T3 manual gun	351708	German
	351709	English

13 SPARE PARTS

13.1 HOW TO ORDER SPARE PARTS?

To ensure proper spare parts delivery, the following information is necessary:

Order number, designation and quantity

The quantity does not have to be identical to the numbers in the "Stk" columns of the lists. This number merely indicates how many of the respective parts are used in each module.

The following information is also required to ensure smooth processing of your order:

- Billing address
- Delivery address
- Name of the person to be contacted in the event of any queries
- Type of delivery (normal mail, express delivery, or courier etc.)

Identification in spare parts lists

Explanation of column "K" (labeling) in the following spare parts lists.

◆ = Wearing part
Note: No liability is assumed for wearing parts.

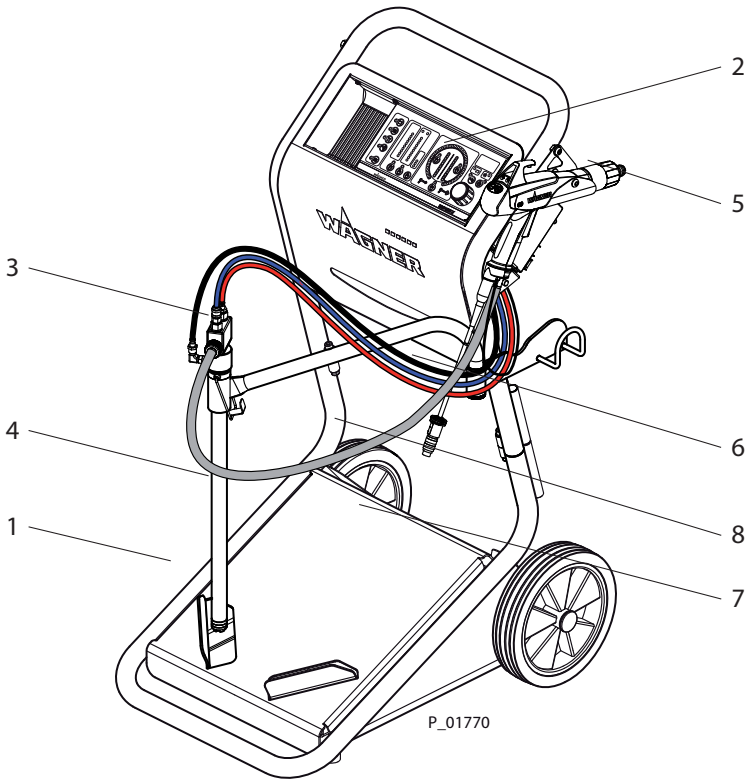
● = Not part of standard equipment, available, however, as a special accessory.

⚠ WARNING

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

→ Have repairs and part replacements be carried out by specially trained staff or a WAGNER service center.
→ Before all work on the unit and in the event of work interruptions:
- Switch off the energy/compressed air supply.
- Ensure that all system components are grounded.
- Secure the unit against being switched back on without authorization.
→ Observe the operating and service instructions when carrying out all work.

13.2 SCOPE OF DELIVERY AND SPARE PARTS LIST OF SPRINT AIRFLUID MANUAL POWDER SYSTEM

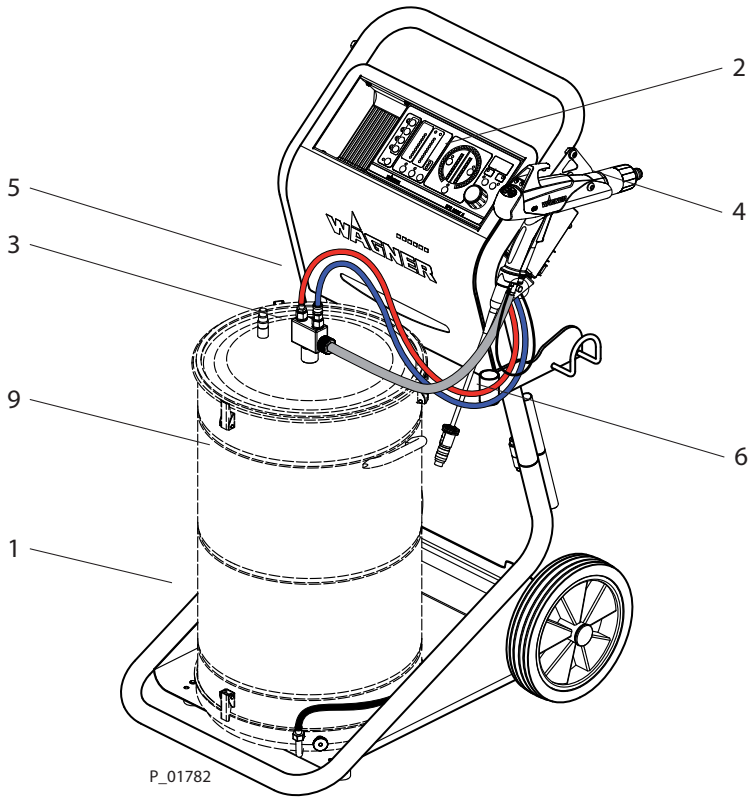


Pos K	Stk	Order No.	Description
		2329483	Sprint Airfluid Plus C manual powder system (standard version)
		2329487	Sprint Airfluid Plus C manual powder system (USA version)
1	1	2303258	Airfluid trolley
2	1	2324731	EPG-Sprint X control unit
		9951117	Thermal delay fuse 1A (included in EPG-Sprint X)
2	1		EPG-Sprint X control unit (US version)
		9951117	Thermal delay fuse 1A (included in EPG-Sprint X)
3	1	241622	PI-F1 powder injector
4	1	265281	Suction tube ST 550/10
5	1	2322587	PEM-X1 manual gun
6		2306401	Sprint connection parts
6/1	1	2303714	Sealing coupling with anti-kink spring
6/2	1.3 m	9982079	Hose, black ∅ 6 mm
6/3	1.3 m	700370	Hose, blue ∅ 8 mm
6/4	1	935973	Sealing coupling with anti-kink spring
6/5	1.3 m	2302060	Hose, red ∅ 8 mm
6/6	1	935974	Coupling plug with anti-kink spring
6/7	5	2327855	Velcro cable ties

7	1	2307107	Piston vibrator, complete
8		265266	Powder hose set ∅ 11x5000 mm; 0.43x196.85 inches
9	1	130215	Grounding cable 10 m; 32.81 ft
10	1	241270	Power cable
11	1	2331976	Sprint spare parts starter kit (not included in the scope of delivery)

13.3 SCOPE OF DELIVERY AND SPARE PARTS LIST OF SPRINT WITH 60 L CONTAINER

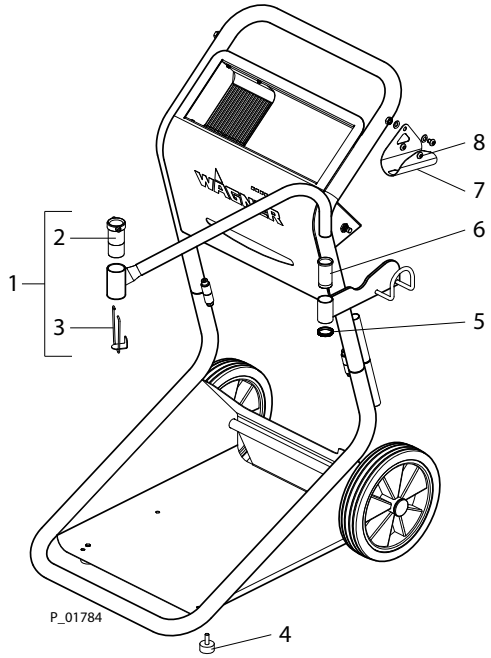
(without vibration table)



Pos K	Stk	Order No.	Description
		2329489	Sprint 60 L C manual powder system (standard version)
		2329491	Sprint 60 L C manual powder system (US version)
1	1	2303764	Trolley 60 L
2	1	2324731	EPG-Sprint X control unit
		9951117	Thermal delay fuse 1A (included in EPG-Sprint X)
2	1		EPG-Sprint X control unit (US version)
		9951117	Thermal delay fuse 1A (included in EPG-Sprint X)
3	1	241622	PI-F1 powder injector
4	1	2322587	PEM-X1 manual gun
5		2306401	Sprint connection parts
5/1	1	2303714	Sealing coupling with anti-kink spring
5/2	1.3 m	9982079	Hose, black ∅ 6 mm
5/3	1.3 m	700370	Hose, blue ∅ 8 mm
5/4	1	935973	Sealing coupling with anti-kink spring
5/5	1.3 m	2302060	Hose, red ∅ 8 mm

5/6	1	935974	Coupling plug with anti-kink spring
5/7	5	2327855	Velcro cable ties
6		265266	Powder hose set ∅ 11 x 5000 mm; 0.43 x 196.85 inches
7	1	130215	Grounding cable 10 m; 32.81 ft
8	1	241270	Power cable
Not included in the scope of delivery, please order separately:			
9	1	264268	60 L powder container
9	1	264224	25 L powder container
10	1	2331976	Sprint spare parts starter kit

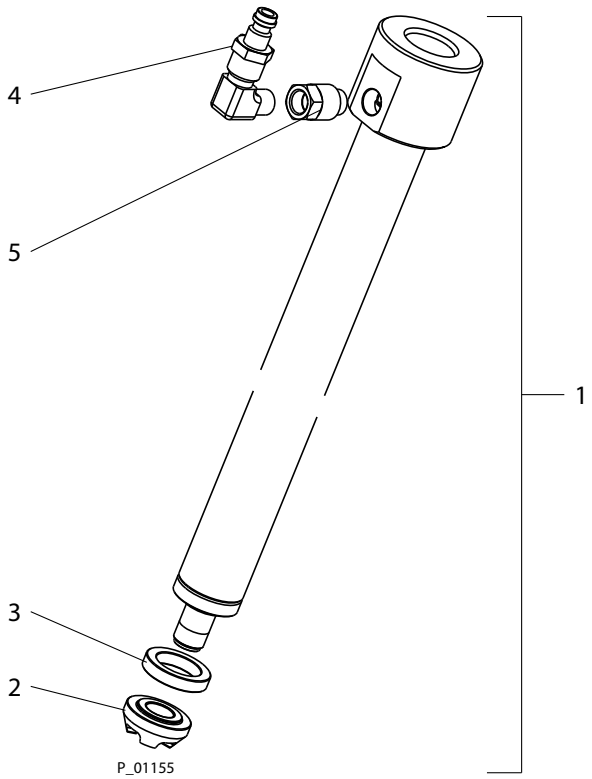
13.4 SPARE PARTS LIST OF THE TROLLEY



Pos	K	Stk	Order No.	Description
1		1	2307117	Sprint injector bracket, complete
2	◆	1	2325026	Suction tube bush
3		1	2325022	Retaining clamp
4		2	2305431	Adjustment foot
5		1	2305421	Nut
6	◆	1	2303279	Guide bush
7		1	2330599	Gun holder
8	◆	1	9950817	Cable socket

◆ Wearing part

13.5 SUCTION TUBE ST 550/10



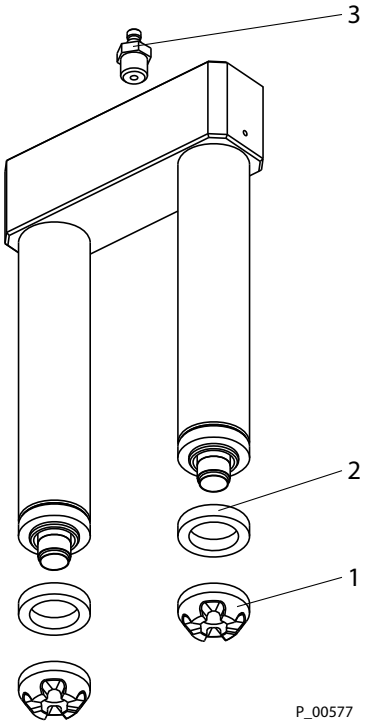
Pos	K	Stk	Order No.	Description
1		1	265281	Suction tube ST 550/10
2	◆	1	265401	Fluid crown
3	◆	1	265402	Fluid ring
4		1	2303716	Plug-in nipple G1/8"
5		1	2307727	Extension

◆ Wearing part

● Not part of the standard equipment but available as a special accessory

★ only available as a set

13.6 FEED SYSTEM SN-2 550/10



Pos	K	Stk	Order No.	Description
			265272	Feed system SN-2 550/10
1	◆	2	265401	Fluid crown
2	◆	2	265402	Fluid ring
3		1	9999047	Plug-in nipple G1/8"

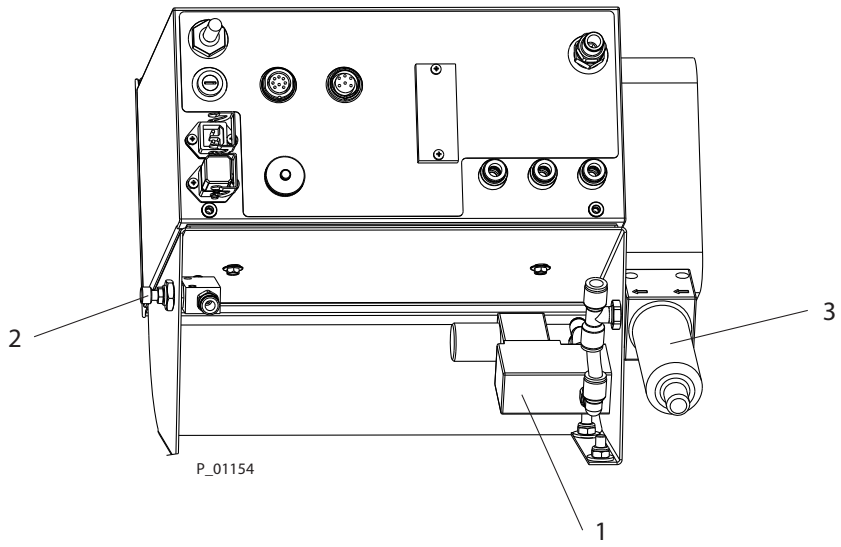
◆ Wearing part

● Not part of the standard equipment but available as a special accessory

★ only available as a set

13.7 COMPRESSED AIR SUPPLY

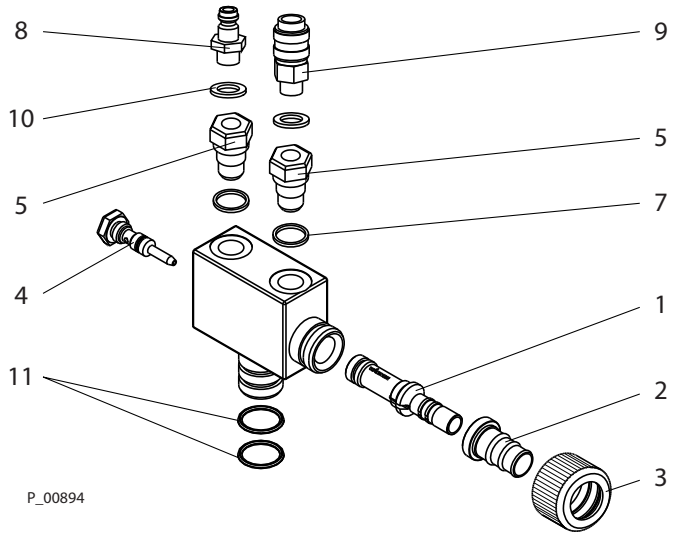
Back side view of the control unit



Pos K	Stk	Order No.	Description
1	1	2303294	Solenoid valve, 2/2 way
2	1	2304119	Fluid air throttle
3	1	2305860	Filter precipitator
		9981151	Compressed air connection hose 18.5 x 12.5 mm

◆ Wearing part
● Not part of the standard equipment but available as a special accessory
★ only available as a set

13.8 PI-F1 POWDER INJECTOR



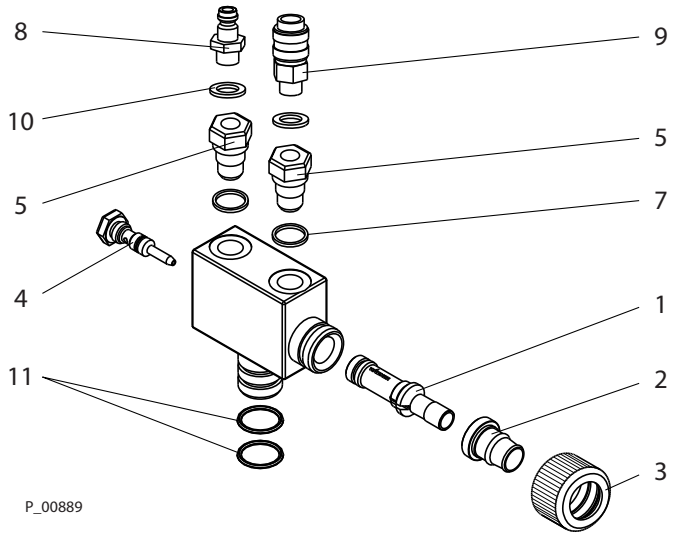
Pos	K	Stk	Order No.	Description
			241622	PI-F1 powder injector
1	◆	1	241225	Collector nozzle
2		1	241476	Conductive nozzle
3		1	241466	Cap nut
4	◆	1	241923	Injector nozzle
5		2	241460	Spring check valve
7		1	9970149	Sealing ring
8		1	9992709	Quick-release plug
9		1	9992710	Quick-release socket
10		1	9970150	Sealing ring
11	◆	2	9974023	Sealing ring, electrically conductive

◆ Wearing part

● Not part of the standard equipment but available as a special accessory

★ only available as a set

13.9 HICOAT-ED PUMP F



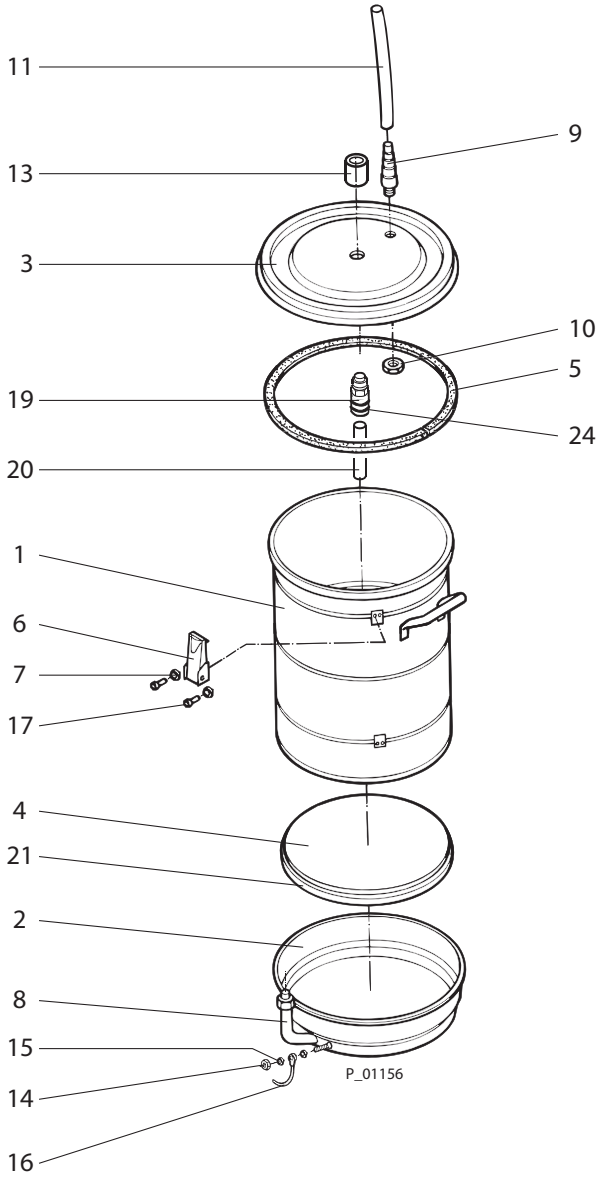
Pos	K	Stk	Order No.	Description
			241624	HiCoat-ED pump F
1	◆	1	241229	Collector nozzle low air
2		1	241479	Hose sleeve
3		1	241466	Cap nut
4		1	241930	Injector nozzle
5		2	241460	Spring check valve
7		1	9970149	Sealing ring
8		1	9992709	Quick-release plug
9		1	9992710	Quick-release socket
10		1	9970150	Sealing ring
11	◆	2	9974023	O-ring, electrically conductive

◆ Wearing part

● Not part of the standard equipment but available as a special accessory

★ only available as a set

13.10 60 L/25 L CONTAINER



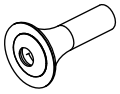
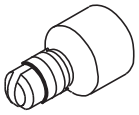
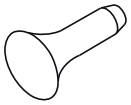
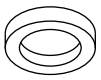
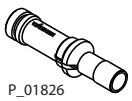
Pos	K	Stk	Order No.	Description
		1	264268	60 L powder container
		1	264224	25 L powder container
1		1	263375	60 L container
1		1	264212	25 L container
2		1	264215	Base housing
3		1	264381	Cover
4	◆	1	264382	Fluidized bed
5	◆	1.10 m	9971527	Foam rubber gasket
6		6	9994703	Spring clip
7		12	9900717	Cylinder head screw
8		1	9992270	Quick coupling for screw-on connector
9		1	184336	Hose nipple
10		1	9910109	Hexagon nut
11			9982058	Exhaust hose 17x3
13		1	241372	Injector connection, complete
14		1	170533	Knurled nut
15		2	9920118	Washer
16		1	241276	Grounding cable, complete
17		12	9922102	Star washer
19		1	241376	Cable connection
20	◆	1	263357	60 L suction tube
20	◆	1	264420	25 L suction tube
21	◆	1.10 m	8324008	Base seal
24	◆	2	9971178	O-ring

◆ Wearing part

● Not part of the standard equipment but available as a special accessory

★ only available as a set

14 WEARING PARTS

	Order No.	Description
 P_01664	2321976	Flat spray nozzle X1, complete
 P_01665	2321981 2321980 2321171	D18 deflector cone, complete D25 deflector cone, complete D34 deflector cone, complete
 P_00696	260928	Fan spray nozzle for PEM-T3
 P_00697	259474	Deflector cone (∅25 mm; 0.87 inch) for PEM-T3
 P_00723	265401	Fluid crown of suction unit
 P_00698	265402	Fluid ring of suction unit
 P_00699	241225	Clearance collector nozzle of PI-F1 Injector
 P_01826	241229	Collector nozzle ED pump

15 DECLARATION OF WARRANTY AND CONFORMITY

15.1 IMPORTANT NOTES ON PRODUCT LIABILITY

As a result of an EC regulation effective from January 1, 1990, the manufacturer shall only be liable for his product if all parts originate from him or are approved by him, and if the devices are properly mounted, operated and maintained.
The manufacturer will not be held liable or will only be held partially liable if third-party accessories or spare parts have been used.
With genuine WAGNER accessories and spare parts, you have the guarantee that all safety regulations are complied with.

15.2 WARRANTY CLAIM

Full warranty is provided for this device:
We will at our discretion repair or replace free of charge all parts which within 24 months in single-shift, 12 months in 2-shift or 6 months in 3-shift operation from date of receipt by the Purchaser are found to be wholly or substantially unusable due to causes prior to the sale, in particular faulty design, defective materials or poor workmanship.
The type of warranty provided is such that the device or individual components of the device are either replaced or repaired as we see fit. The resulting costs, in particular shipping charges, road tolls, labour and material costs will be borne by us except where these costs are increased due to the subsequent shipment of the unit to a location other than the address of the purchaser.
We do not provide warranty for damage that has been caused or contributed to for the following reasons:
Unsuitable or improper use, faulty installation or commissioning by the purchaser or a third party, normal wear, negligent handling, defective maintenance, unsuitable coating products, substitute materials and the action of chemical, electrochemical or electrical agents, except when the damage is attributable to us.
Components that have not been manufactured by WAGNER are subject to the original warranty of the manufacturer.
Replacement of a component does not extend the period of warranty of the device.
The unit should be inspected immediately upon receipt. To avoid losing the warranty, we or the supplier company are to be informed in writing about obvious faults within 14 days upon receipt of the device.
We reserve the right to have the warranty compliance met by a contracting company.
The services provided by this warranty depend on evidence being provided in the form of an invoice or a delivery note. If upon examination it is discovered, that no warranty claim exists, the costs of repairs are charged to the purchaser.
It is clearly stipulated that this warranty claim does not represent any constraint on statutory regulations or regulations agreed to contractually in our general terms and conditions.

J. Wagner AG

15.3 CE DECLARATION OF CONFORMITY

15.3.1 CE DECLARATION OF CONFORMITY FOR TROLLEY

Herewith we declare that the supplied version of

- Airfluid Trolley/60 L Trolley

complies with the following provisions applying to it:

- 94/9/EC (ATEX Directive)
- 2006/42/EC (Machinery directive)
- 2002/95/EC (RoHs Directive)
- 2002/96/EC (WEEE Directive)

Applied standards, in particular:

- DIN EN 1127-1: 2011
- DIN EN 13463-1: 2009
- DIN EN 13463-5: 2011
- DIN EN 61010-1:2011
- DIN EN 60079-0: 2010
- DIN EN 60079-31: 2010
- DIN EN ISO 12100: 2011

Applied national technical standards and specifications, in particular:

- BGI 764

Identification:

CE Ex II 3D c 80 °C

EC Certificate of Conformity
The CE certificate of conformity is enclosed with this product. If needed, further copies can be ordered through your WAGNER dealer by specifying the product name and serial number.

Order number:
Airfluid Trolley/60 L Trolley 2329128

15.3.2 CE DECLARATION OF CONFORMITY FOR CONTROL UNIT

Herewith we declare that the supplied version of

- EPG-Sprint X, Order No. 2324731

complies with the following provisions applying to it:

- 94/9/EC (ATEX Directive)
- 2004/108/EC (EMC Directive)
- 2002/95/EC (RoHs Directive)
- 2002/96/EC (WEEE Directive)

Applied standards, in particular:

- pr DIN EN 50050-2: 2011
- DIN EN 50050: 2007
- DIN EN 50177: 2010
- DIN EN 1127-1: 2011
- DIN EN 60079-0: 2010
- DIN EN 60079-7: 2007
- DIN EN 60079-31: 2010
- DIN EN 60204-1: 2007
- DIN EN ISO 80079-34: 2012
- DIN EN 62061: 2010
- DIN EN ISO 13849-1: 2008
- DIN EN 60529: 2000
- DIN EN ISO 12100: 2011
- DIN EN 61000-6-2: 2011
- DIN EN 61000-6-4: 2011
- BGI 764

Identification:

CE 0102 Ex II 3(2)D IP 64 80 °C

EC Certificate of Conformity
The CE certificate of conformity is enclosed with this product. If needed, further copies can be ordered through your WAGNER dealer by specifying the product name and serial number.

Order number:
EPG-Sprint X 2327595

15.3.3 CE DECLARATION OF CONFORMITY FOR POWDER GUNS

Herewith we declare that the supplied version of

- PEM-X1 Manual Gun, Order No. 2322587

complies with the following provisions applying to it:

- 94/9/EC (ATEX Directive)
- 2006/42/EC (Machinery Directive)
- 2004/108/EC (EMC Directive)
- 2002/95/EC (RoHs Directive)
- 2002/96/EC (WEEE Directive)

Applied standards, in particular:

- pr DIN EN 50050-2: 2011
- DIN EN 50050: 2007
- DIN EN 1127-1: 2011
- DIN EN 60079-0: 2010
- DIN EN 60079-31: 2010
- DIN EN 60079-7: 2007
- DIN EN 1953: 2010
- DIN EN 60204-1: 2007
- DIN EN ISO 80079-34: 2012
- DIN EN 14462: 2010
- DIN EN 60529: 2000
- DIN EN ISO 12100: 2011
- DIN EN 61000-6-2: 2011
- DIN EN 61000-6-4: 2011
- DIN EN 62061: 2010
- DIN EN ISO 13849-1: 2008
- DIN EN 50177: 2010

Applied national technical standards and specifications, in particular:

- BGI 764

Identification:

CE 0102 Ex II 2D 2mJ
PTB 12 ATEX 5002
EN 50050-2: 2012

EC Certificate of Conformity
The CE certificate of conformity is enclosed with this product. If needed, further copies can be ordered through your WAGNER dealer by specifying the product name and serial number.

Order number:
PEM-X1 Manual Gun 2326024

15.4 EC TYPE EXAMINATION CERTIFICATE

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) **EC-TYPE-EXAMINATION CERTIFICATE**

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 12 ATEX 5001

(4) Equipment: EPG-Sprint X control module and EPG S2 dual control module, for controlling electrostatic powder coating devices of the types PEM and PEA of the C2, C3, C4, T3, T4, and X1 generations

(5) Manufacturer: J. Wagner AG

(6) Address: Industriestrasse 22, 9450 Altstätten, Switzerland

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report PTB Ex 12-51176.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

DIN EN 50050:2007, prEN 50050-2:2011, DIN EN 50177:2010

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 3(2)D IP64 80 °C

ZSEx10100e.dotm

Zertifizierungssektor Explosionsschutz
On behalf of PTB:

Braunschweig, 6 August 2012

Dr.-Ing. M. Beyer
Direktor und Professor

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 29

sheet 1/3

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • 38116 Braunschweig • GERMANY

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(1) EC-TYPE-EXAMINATION CERTIFICATE

(Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**

(3) EC-type-examination Certificate Number:

PTB 12 ATEX 5002

(4) Equipment: PEM-X1 electrostatic hand-operated powder coating gun and PEM-X1 CG electrostatic hand-operated powder cup-gun with accessories.

(5) Manufacturer: J. Wagner AG

(6) Address: Industriestrasse 22, 9450 Altstätten, Switzerland

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report PTB Ex 12-51177.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

DIN EN 50050:2007, prEN 50050-2:2011, DIN EN 50177:2010

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

II 2D 2mJ

ZSEx10100e.dotm

Zertifizierungssektor Explosionsschutz
On behalf of PTB:

Braunschweig, 6 August 2012

Dr.-Ing. M. Beyer
Direktor und Professor

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 20

sheet 1/3

EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt.
In case of dispute, the German text shall prevail.

Physikalisch-Technische Bundesanstalt • Bundesallee 100 • 38116 Braunschweig • GERMANY

15.5 FM APPROVAL

in submission

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Order No. 2329368

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