
Operating instructions and spare parts list

ClassicStandard Powder coating booth



Translation of the original operating instructions

Documentation Classic Powder coating booths

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General safety regulations

This chapter sets out the fundamental safety regulations that must be followed by the user and third parties using the Classic powder coating booth.

These safety regulations must be read and understood before the Classic powder coating booth is put into operation.

Safety symbols (pictograms)

The following warnings with their meanings can be found in the Gema operating instructions. The general safety precautions must also be followed as well as the regulations in the operating instructions.

**DANGER!**

danger due to live electricity or moving parts. Possible consequences: Death or serious injury

**WARNING!**

improper use of the equipment could damage the machine or cause it to malfunction. Possible consequences: minor injuries or damage to equipment



**INFORMATION!**

useful tips and other information

Conformity of use

1. The Classic powder coating booth is built to the latest specification and conforms to the recognized technical safety regulations and is designed for the normal application of powder coating.
2. Any other use is considered as non-conform. The manufacturer shall not be liable for damage resulting from such use; the user bears sole responsibility for such actions. If the Classic powder coating booth is to be used for other purposes or other substances outside of our guidelines then Gema Switzerland GmbH should be consulted.

3. Observance of the operating, service and maintenance instructions specified by the manufacturer is also part of conformity of use. The Classic powder coating booth should only be used, maintained and started up by trained personnel, who are informed about and are familiar with the possible hazards involved.
4. Start-up (i.e. the execution of a particular operation) is forbidden until it has been established that the Classic powder coating booth has been set up and wired according to the guidelines for machinery (2006/42 EG). EN 60204-1 (machine safety) must also be observed.
5. Unauthorized modifications to the Classic powder coating booth exempts the manufacturer from any liability from resulting damage.
6. The relevant accident prevention regulations, as well as other generally recognized safety regulations, occupational health and structural regulations are to be observed.
7. Furthermore, the country-specific safety regulations also must be observed.

Explosion protection	Protection type
 	IP54

Product specific security measures

General information

The Classic powder coating booth is a constituent part of the equipment and is therefore integrated in the system's safety concept.

If it is to be used in a manner outside the scope of the safety concept, then corresponding measures must be taken.



NOTE:

For further security information, see the more detailed Gema safety regulations!

Installation


- The installation work, to be done by the customer, must be carried out according to local regulations
- Before starting up the plant a check must be made that no foreign objects are in the booth or in the ducting (input and exhaust air)
- It must be observed, that all components are grounded according to the local regulations, before start-up
- The booth grounding is to be checked at every start-up. The grounding connections are customer specific, and are made on the base of the booth. The proper grounding of the workpieces and other plant units must also be checked.

Inspection check

Before the booth is switched on, the following points are to be checked:

- Powder trolley must be in place, the clamps locked in, the pneumatic conduction and electric cables connected
- Filter cartridges are inserted
- Filter pads on the exhaust housing are not contaminated (a contamination indicates damaged filter cartridges)

Entering the booth / booth cleaning

To protect the personnel by entering the booth for inspection and cleaning purposes, the booth must be switched on with the  switch. The fan is started up with this, the ES control units and other plant units are interlocked, however, and cannot be switched on.

Repairs



ATTENTION:

Carrying out of repairs is only permitted when the booth is switched off, and must be done only by trained personnel!

About this manual

General information

This operating manual contains all the important information which you require for the working with the Classic powder coating booth. It will safely guide you through the start-up process and give you references and tips for the optimal use of your new powder coating system.

Information about the function mode of the individual system components - booth, gun control unit, manual gun or powder injector - should be referenced to their enclosed corresponding documents.



DANGER:

Working without operating instructions

Working without operating instructions or with individual pages from the operating instructions may result in damage to property and personal injury if relevant safety information is not observed.

- ▶ Before working with the device, organize the required documents and read the section "Safety regulations".
 - ▶ Work should only be carried out in accordance with the instructions of the relevant documents.
 - ▶ Always work with the complete original document.
-

Function description

Field of application

The Classic powder coating booth is intended exclusively for the electrostatic coating with organic or metallic powders. Any other use is considered as non-conform. The manufacturer shall not be liable for damage resulting from such use; the user bears sole responsibility for such actions!

Reasonably foreseeable misuse

- Use of enamel powders,
- Operation without appropriate training
- Cleaning or blowing off of devices or parts not involved in the coating process

Operation

The ClassicStandard powder coating booths are particularly suitable for manual coating of objects in small series, individual parts or repairs with plastic or metallic powders.

Function

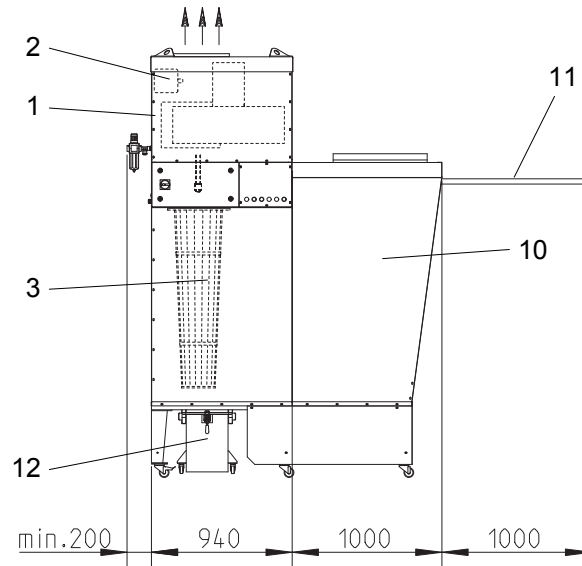
The booth function is characterized by the protection of the coating process from external influences, combined with keeping the area around the booth clean.

The booth function is based on a powerful exhaust air system, which aspirates air from the booth interior through filter cartridges. The resulting negative pressure produces an airflow from the outside of the booth to the inside, thus preventing powder from escaping into the environment.

In order to have a full understanding of the booth operation, the booth functions are individually described in the following sections.

Classic booths with Jet cleaning

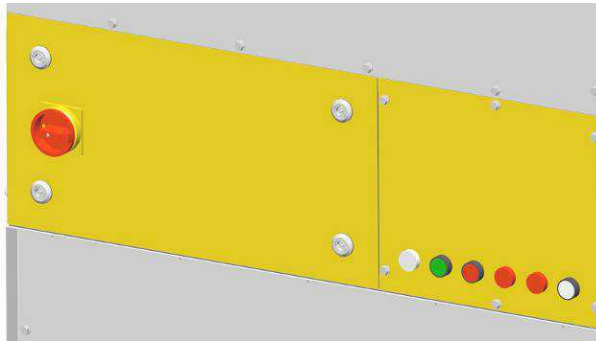
Classic Standard 2



Powder coating booth - Classic Standard 2







- | | | | |
|---|-----------------------------------|----|-------------------------------|
| 1 | Exhaust air unit/fan housing | 10 | Work area |
| 2 | Pressure tank for filter cleaning | 11 | Rail for workpiece suspension |
| 3 | Filter cartridges | 12 | Powder trolley |

Operating elements



Operating elements

Main switch (-871Q1)

-  Control voltage ON (-873H1)
-  Plant OFF (-874S1)
-  Plant ON (-874S2)
-  Motor fault (-874H1)
-  Fan overpressure (-875H1)
-  Filter cartridges cleaning ON/OFF (-875S1)

S = Switch/push button

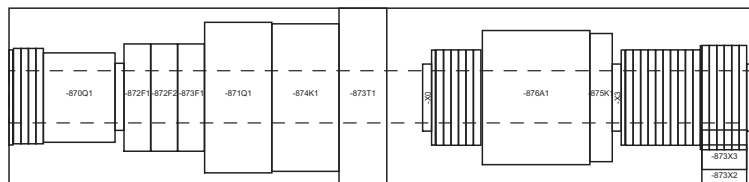
H = Indicator lamp

Equipment



Note:

The control cabinet is equipped with the corresponding operating elements dependent on the booth configuration!



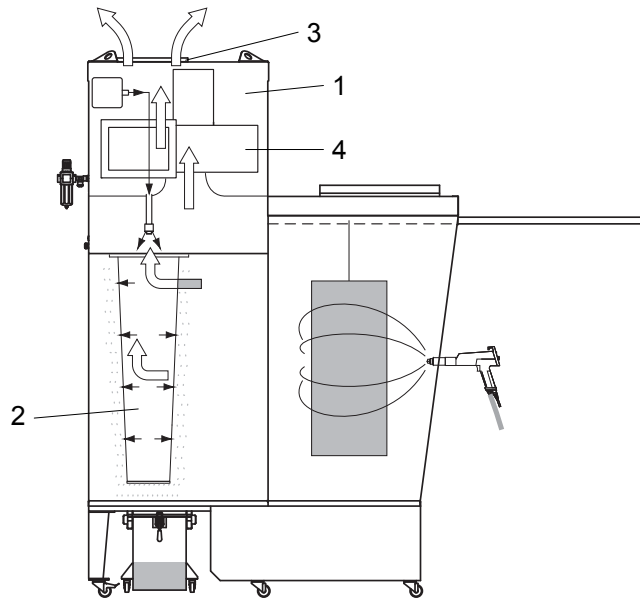
Control - Equipment

The designations are explained in the enclosed wiring diagram.

Exhaust air system (recirculation air)

The exhaust fan (4) of the exhaust system is located in the fan housing (1) above the filter cartridges (2). It sucks air from the booth interior through the filter cartridges, and returns the clean air through the filter pads (3) to the environment.

The filter pads in the fan housing are intended as visual inspection only. Should one of the filter cartridges become damaged or develop a leak, powder will be deposited on this filter stage. The efficiency of the exhaust system depends on how severely the filter cartridge is clogged. For this reason, the suction efficiency is determined and indicated by measuring the differential pressure between the clean air side and the booth environment (pressure monitoring). A pressure rise indicates an increasing clogging of the filter cartridges.



Classic Standard - exhaust air system (recirculation air)

Filter cleaning

Each filter cartridge (2) is equipped with a cleaning device and can be cleaned while the booth is in operation. The cleaning procedure is activated manually by the relevant switch on the control cabinet.



NOTE:

The filter cartridges should not be cleaned more than 1-2 times per shift!


The cartridges are cleaned by compressed air impulses, injected by pressure pipes inside the cartridges. The powder drops onto the booth floor, from where it arrives into the powder trolley or the powder collector.

The filter cleaning air is supplied from the pressure tank in the exhaust air unit, and must amount 5 bar (recommended), and not exceed 6 bar. The cleaning process and consequently the blow off duration per filter cartridge and the pause time, before the next cartridge is blown off, are controlled by an electronic control unit. The blow off time for the cleaning impulse must amount to 10-30 ms and is preset by factory:

- Blow off time = 20 msecs (factory setting)
- Pause time = 10 s (factory setting)



NOTE:

The settings for the blow off time and the pressure should only be changed if the lamp "  Fan overpressure" illuminates repeatedly!

- ▶ If this measure does not help on a permanent basis, the filter cartridges are to be replaced!
-

Powder circuit

A powder trolley is a prerequisite for working with a closed powder circuit. In the closed powder circuit, the gun is connected to the powder trolley. The powder is fed from the powder trolley via the gun to the workpiece. The over-sprayed powder drops to the booth floor or is retained by the filter cartridges, from where it also drops down inside the booth when the filters are blown off. The powder is scraped manually into the powder trolley, where it can be reused for coating operation.

Powder trolley

The powder trolley is installed at the rear of the booth, under the booth floor. The powder trolley can be rolled out and is pressed against the booth in its working position. Herein, the powder is fluidized, then sucked up by the injector and fed to the gun.

The powder which has dropped to the booth floor is fed back into the powder trolley through a vibrating sieve. Thereby, contamination in the

powder is eliminated. The sieve can be switched on with the



Power supply for ES equipment

Classic booths are factory-equipped with connectors for ES equipment; these can be deenergized per ATEX regulations if exhaust air levels drop too low.

Fire protection

Classic booths are factory-equipped with connectors for a fire alarm system, which is not included in the Gema scope of supply. The customer is responsible for obtaining, installing, and connecting these components.



WARNING!

Be sure to follow local regulations when positioning elements!

Gema has provided the proposed locations shown here for reference purposes only.

Alarm location on ClassicStandard 2



Technical data

Classic powder coating booths

General data

Classic Standard 2	
Cleaning system	Jet
Number of filter elements	2
Filter surface (m ²)	30
Powder trolley	yes, 80 liters

Electrical data

Classic Standard 2	
Input voltage, frequency	3x380 - 420 V, 50 Hz
Input power value (kW)	2.7
Fan power, effective (kW)	2.2

Pneumatic data

Classic Standard 2	
Input pressure (bar)	min. 6 / max. 10
Recommended input pressure	7 bar
Water vapor content of compressed air	max. 1.3 g/m ³
Oil content of compressed air	max. 0.1 mg/kg
Compressed air consumption at filter cleaning max.	15 m ³ /h at 6 bar input pressure
Exhaust air volume, rated (Nm ³ /h)	4000

Dimensions

Classic Standard 2	
Floor space required	3 m ²
Width (mm)	1500
Depth (mm)	2000
Height (mm)	2900
Work area	Booth
Width (mm)	1400
Depth (mm)	800
Height (mm)	1450
Weight approx. (kg)	580

Sound pressure level

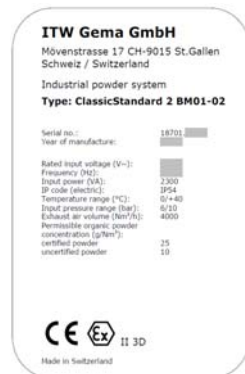
Classic Standard 2	
Sound pressure level	< 78 dB(A)

The sound pressure level was measured while the unit was in operation; measurements were taken at the most frequent operator positions as well as at a height of 1.7 m from the ground.

The specified value is applicable only for the coating booth itself and does not take into account external noise sources or cleaning impulses.

The sound pressure level may vary, depending on the booth configuration and space constraints.

Rating plate



NOTE:

Fields with a gray background contain contract-specific data!

Set-up, assembly and initial start-up



NOTE:

Make sure you consult the Set-up and Assembly Instructions accompanying this manual!

Start-up

General information



NOTE:

Before starting up, it may be necessary to run a function check. A start-up should be carried out before the start of every shift, and after the booth has been standing idle for long period!



NOTE:

Because the coating booth is a mobile unit, you must always engage the caster brakes each time after moving the booth!

Preparation for start-up

Procedure

- Observe the safety regulations
- Carry out the following checks and, if necessary, carry out the points listed below (the procedures are described in more detail in the further chapters):
 1. Position the powder trolley (see corresponding chapter)
 2. Fill in powder, if necessary, top up with powder (see corresponding chapter)
 3. Check that the filter cartridges are firmly seated
 4. Replace the filter cartridges (at color changes or if defective, see chapter "Replacing the filter cartridges")

Position the powder trolley



ATTENTION:

Careless handling can result in minor crush injuries to hands and fingers!

1. Push the powder trolley laterally under the booth floor all the way to the stop position and press it on with the clamping lever
2. Connect the air hoses for fluidization and vibrating sieve
3. Connect the injector





NOTE:

To remove the trolley, it must first be lowered. Take care that the trolley does not drop down when it is being lowered!

Filling the powder trolley

The following section describes how the empty powder trolley is to be filled. The powder trolley can only be filled manually. Before filling the trolley, it may be necessary to carry out a coarse cleaning of the booth.

In order to eliminate a powder contamination, fresh powder should not be filled directly into the trolley; the following procedure is recommended:

1. Switch on the booth with the  button
2. Switch off the electrostatic control units
3. Switch on the sieve with the  button
4. Evenly distribute portions of fresh powder directly over the sieve. The powder is passed through the sieve and freed from any contamination
5. Repeat this procedure until the required amount of powder is in the container
6. Check the powder level through the control flap of the powder container

The filling capacity by empty powder trolley is approx. 15 kg plastic powder (average value).



ATTENTION:

The above mentioned powder amount must not be overstepped (danger of overflow by fluidization)!

Start-up


Procedure

1. Release the compressed air circuit (input pressure must amount to at least 6 bar)



ATTENTION:

The pressure may not be set higher than 6 bar on the booth pressure regulator, otherwise the safety valve at the pressure tank will be activated!

2. Switch on the booth (switch on the main switch, and press the  button), see also chapter "Switching on the booth"
3. Adjust the operating parameters on the pneumatics cabinet:
 - Sieve pressure reducing valve (4): approx. 2-3 bar, depending on the powder type
 - Fluidizing pressure reducing valve (3): approx. 0,5-1,5 bar, depending on the powder, the powder should lightly "boil" (check this through the inspection flap of the powder container)
4. Check the fluidization and regulate, if necessary. The adjustment of the required fluidization air pressure depends on the powder type, the air humidity and the ambient temperature. For this reason, only an arbitrary fluidization setting is possible and should be readjusted, according to previous experience for the powder type being used

Operation



ATTENTION:

Persons taller than 1.77 m (5 ft. 8 in.) run the risk of bumping into the crane rail, potentially resulting in head injury.

Functional check

Check the grounding of the booth and the other connected equipment and if necessary, ground. Before starting work, carry out a function check.

Start-up

A start-up should be carried out after the booth has stood still for a long period, or when starting work.

Safety recommendations

The safety recommendations are to be strictly observed!

Switching on the booth



NOTE:

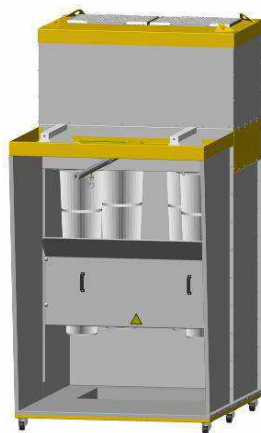
The shield (if available) must be in working position when the booth is in operation!



ATTENTION:

Careless handling could cause the shield to be lifted out of the holder and fall to the booth floor, potentially crushing feet or toes.

► Wear safety shoes with steel toecaps.



Shield position during operation

Procedure

1. Switch on the main switch, the control unit is activated, the ⚡ lamp illuminates, the booth lighting (if available) switches on
2. Press the **ⓘ** button, the fan starts up, the fluidization starts up and the interlocked plant units are released (electrostatic control units etc.)
3. Check the fluidization (through the inspection flap on the powder container), the powder must lightly “boil”, if necessary, adjust on the pressure reducing valve on the pneumatics cabinet
4. Switch on the electrostatic control unit, the gun begins to spray when the trigger is pressed

Switching off the booth

Procedure

1. Switch off the electrostatic control unit
2. Press the **⓪** button

3. Switch off the main switch, the ⚡ lamp goes out
4. Check the powder container sieve for contamination and clean, if necessary

Switching on/off the lighting

ClassicStandard manual powder coating booths are fitted with two strip lightings in the roof of the booth as standard equipment. The lightning is switched on and off with the main switch.

Filter cleaning



ATTENTION:

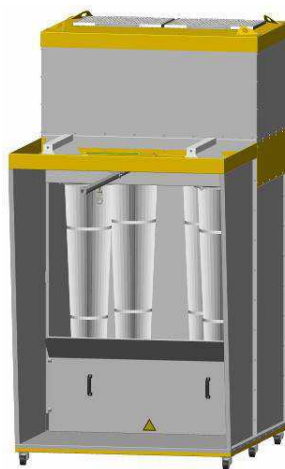
Peak noise levels occurring during the cleaning process may cause hearing damage!

- ▶ Do not approach the booth unless absolutely necessary!
 - ▶ Wear ear muffs per EN 352-1.
-




NOTE:

Before cleaning the cartridges, the shield must be moved to the lowest position!



Filter cleaning

The filter cartridges are cleaned cyclically during booth operation. The cleaning cycle must be released manually with the  switch. The cycle determining times are set at the factory.



NOTE:

The filter cartridges should not be cleaned more than 1-2 times per shift!

- ▶ The cleaning process should last approx. 4 minutes with factory default settings (ClassicStandard 2 = 2 minutes).
-

If the differential pressure is too great, the "Fan overpressure" lamp lights up, whereby the ES equipment is switched off. The cycle time adjustment is described below.

Color change

Procedure

1. Clean the booth (see therefore chapter "Booth cleaning")
2. Clean the powder trolley thoroughly (see therefore in chapter "Cleaning the powder trolley")
3. Clean the injector separately, blow off the powder hose and clean the gun according to the corresponding operating manual
4. Replace the filter cartridges (see therefore in chapter "Replacing the filter cartridges")

Parameterization

The various time sequences can be easily set and adapted to all plant-specific requirements by the aid of a simple menu control unit.



NOTE:

Read carefully this section, before access to a menu option!

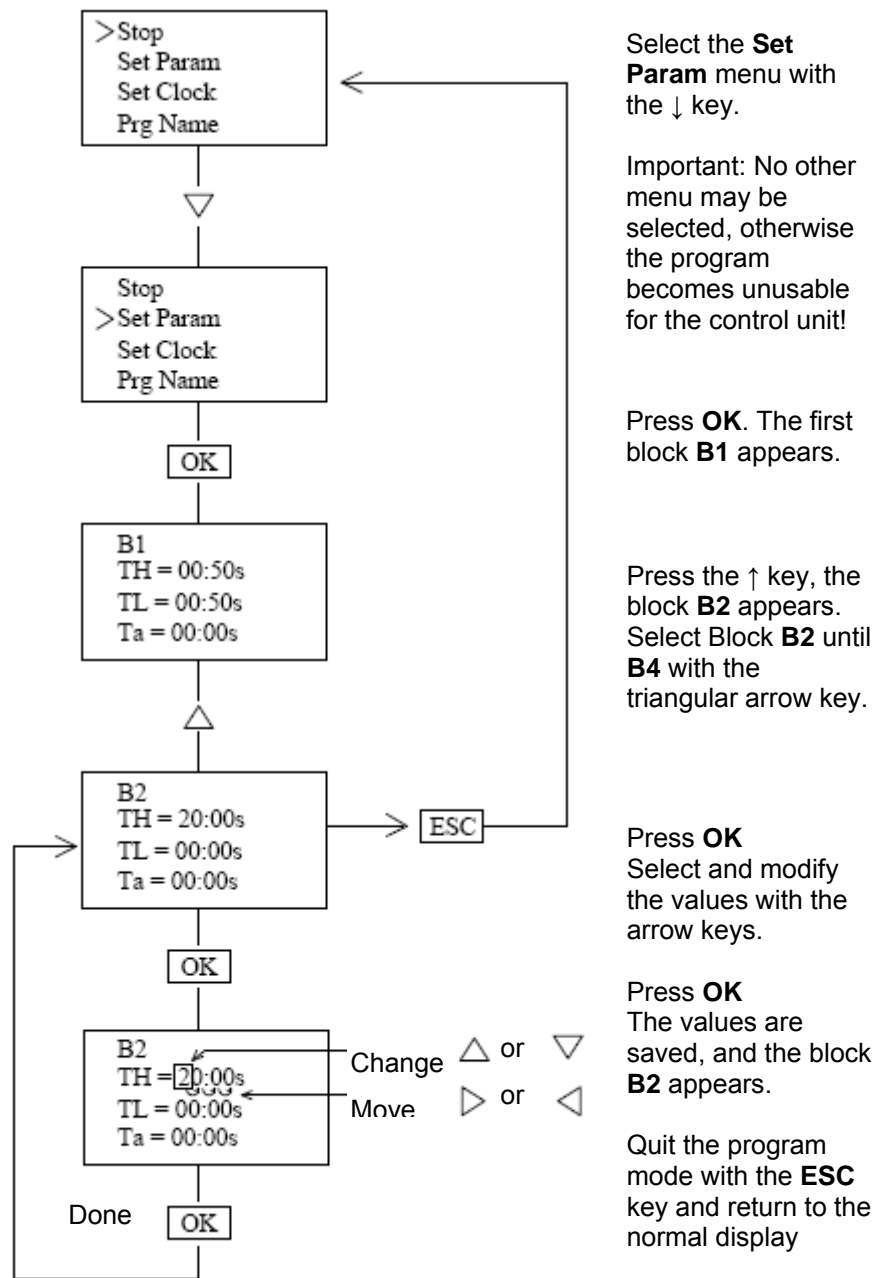
The standard display looks as follows:

> Stop Set Param Set Clock Prg Name	← not to be used ← Parameter setting ← not to be used ← not to be used
--	---

Parameter input display:

B2 TH = 20:00s TL = 00:00s Ta = 00:00s	← Block number ← The value set at Parameter Time ON ← The value set at Parameter Time ← OFF ← Current time
---	--

Entering and selecting a menu option



ATTENTION!

The control unit continues to process the program in the "Parameterization" operating mode!

Parameterization

Block no. (Parameter)	Designation	Default value	Remarks
B001 ImpParam	Filter cleaning times	Cleaning impuls TH = 0.2 secs. Pause time: TL = 10.0 secs.	This value should be adjusted only by experienced plant specialists!



ATTENTION:

Adjustment of the remaining parameters is not permitted!

Maintenance

General information



DANGER:

An electric shock sustained during assembly, servicing, or maintenance work performed near live components may result in serious injury or death!

- ▶ All work must be performed by trained personnel only, and only on deenergized components!
-



ATTENTION!

Contact with overheated electrical components may result in burn injuries!

- ▶ All work must be performed by trained personnel only, and only on deenergized components!
-

Maintenance schedule

Time interval	Maintenance works
Daily or after each shift	<ul style="list-style-type: none"> - Blow off the hose with compressed air - Clean the outside of the gun and check for wearing parts - Coarse cleaning of the booth (see therefore chapter "Coarse booth cleaning") - Check the vibration sieve in the powder trolley and remove any contamination - Clean the filter cartridges (see therefore chapter "Filter cleaning")
Weekly	<ul style="list-style-type: none"> - Clean the filter cartridges and check for visible damages, if necessary, replace (see chapter "Replacing the filter cartridges") - Check the filter pads on the exhaust air exits of the fan housing, a large powder deposit indicates a defective filter cartridge, replace the defective filter cartridge or the complete filter set (see chapter "Replacing the filter cartridges") - Clean completely the booth (no wet cleaning!) <p>ATTENTION: A booth cleaning should not take place immediately after the powder trolley have been filled with fresh powder; danger of overflow!</p> <ul style="list-style-type: none"> - Empty the powder trolley - Check the oil/water separator and empty, if necessary (if oil is present, the customer should check the air compressor)
Biannually	<ul style="list-style-type: none"> - Inspect the exhaust fan (motor and blade wheel) for dust and powder deposits. A service port is provided on 4-kW motors.



NOTE:

The parts which are to be replaced during maintenance work, such as filters, filter pads etc. are available as spare parts.

► Please refer to the spare parts list too!

Coarse booth cleaning



ATTENTION:

A coarse booth cleaning should not take place immediately after the powder trolley have been filled with fresh powder - danger of overflow!

► Never blow off the filter cartridges with compressed air gun!

Procedure

1. Switch on the booth

2. Check the powder trolley vibrating sieve and clean up any contamination with an industrial vacuum cleaner
3. Knock on the outside of the booth walls, so that any powder adhering to the inside falls to the booth floor
4. Move the powder manually onto the powder trolley sieve, the powder will be sieved

Booth cleaning





ATTENTION:

A coarse booth cleaning should not take place immediately after the powder trolley have been filled with fresh powder - danger of overflow!


- ▶ Never blow off the filter cartridges with compressed air gun!
-

Procedure

1. Switch on the booth
2. Press the  switch (filter cleaning) and wait until all filter cartridges have been blown off, then press the  switch again (see therefore chapter "Filter cleaning")
3. Check the powder trolley vibrating sieve and clean any contamination, if necessary
4. Clean the booth walls with a squeegee
5. Move the powder manually onto the powder trolley sieve, the powder will be sieved

Cleaning the powder trolley

Procedure

1. Start up the booth
2. Start the vibrating sieve with the  switch
3. Lower the powder trolley and remove it



ATTENTION:

Do not let the powder trolley fall when lowering!

4. Clean the vibration sieve with an industrial vacuum cleaner, remove it and place it next to the trolley. Caution: Do not bend the air hoses of the vibrator!
5. Disconnect the hose connections on the injector
6. Remove the injector, clean it and put it aside
7. Put the powder into a plastic bag with a plastic scoop. Wipe the residual powder with a soft brush and put it also into the plastic bag

8. Clean the container with an industrial vacuum cleaner
9. Clean the inside and outside of the container with a clean, dry cloth
10. Check the sieve for damage, if necessary, replace the defective sieve
11. Clean thoroughly the bottom with an industrial vacuum cleaner
12. Clean thoroughly the fluidizing bed with an industrial vacuum cleaner
13. Check the condition of the rubber seals, the rubber profiles of the sieve frame and the injector plate seating, if necessary, replace
14. Reassemble the container

Replacing spare parts

General information



ATTENTION:

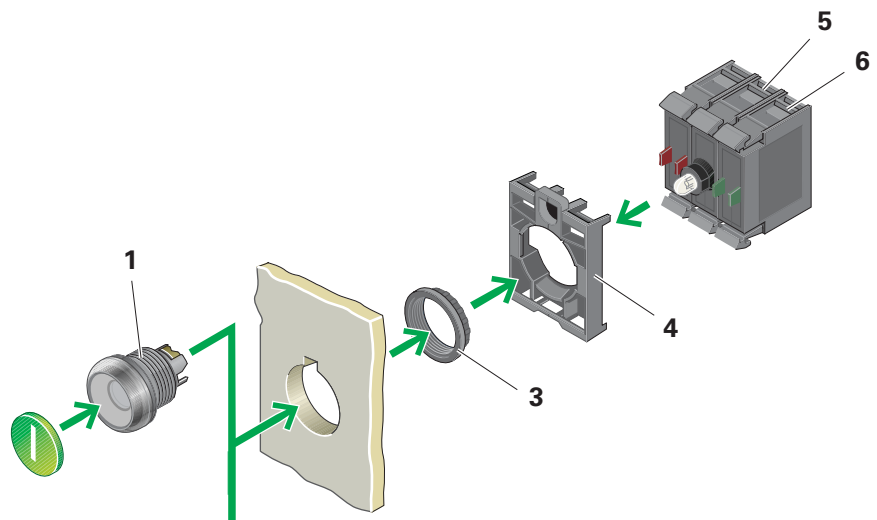
The replacement of spare parts may only be carried out by trained personnel!

► The plant must be switched off before replacing spare parts!

Spare parts can be ordered according to the spare parts list.

Replacing the push button lamp/switch elements

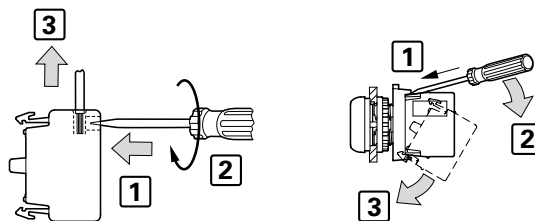
(Control panel)



Replacing the push button lamp/switch elements

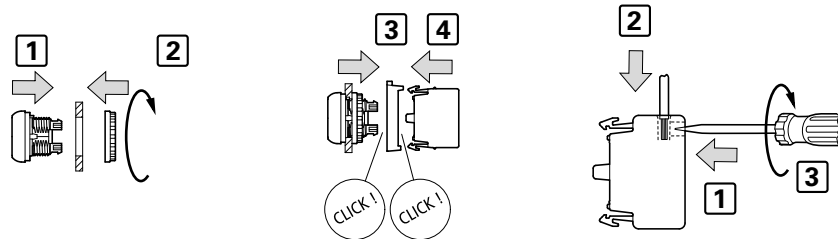
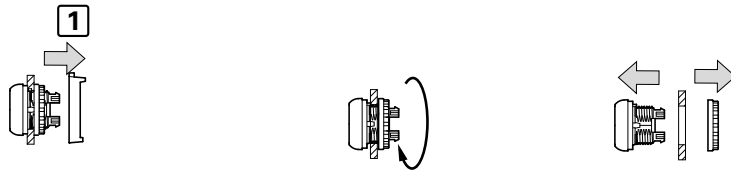
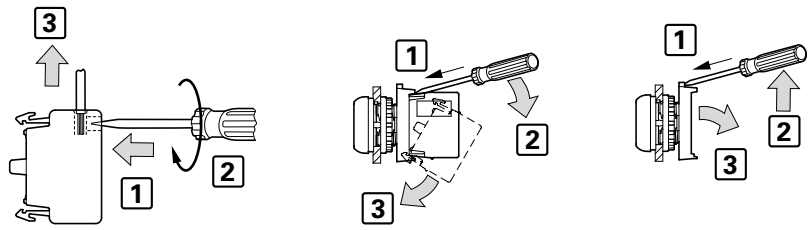
- | | | | |
|---|----------------|---|------------------|
| 1 | Push button | 5 | LED elements |
| 3 | Locking ring | 6 | Contact elements |
| 4 | Fixing adaptor | | |

Procedure for replacing the push button lamp/switch elements



Replacing the push button switch



Procedure for replacing the push button switch



Procedure for replacing the push button switch

Replacing the filter cartridges

A filter cleaning operation must take place before every filter cartridge replacement:

1. Start up the booth
2. Press the  switch (filter cleaning) and wait until all filter cartridges have been blown off, then press the  switch again to switch off the cleaning (see therefore chapter "Filter cleaning")
3. Switch off the booth

Procedure for replacing the filter cartridges



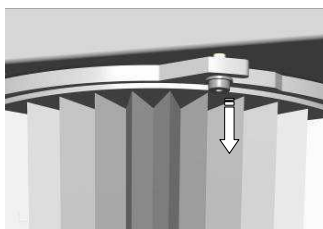
NOTE:

Replace the entire cartridge set if damage to one of the filter cartridges has been identified or if prolonged use of the cartridges has resulted in excessive filter resistance, causing repeated triggering of the alarm.

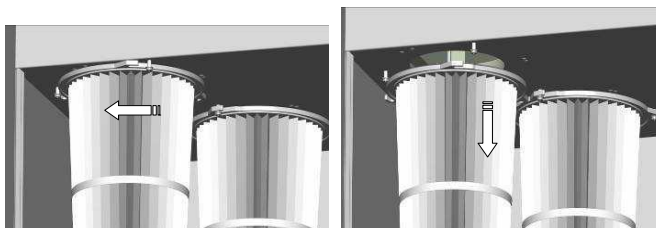
The access to the filter cartridges takes place from the inside of the booth.

Dismantling:

1. Remove the shield (Classic Standard 4 and Open only)
2. Loosen the fixing screws a couple of turns with the correct size spanner. Do not unscrew completely!



3. Hold the filter cartridge in both hands, turn slightly and hang it out from the holding screws



4. Place the filter cartridge away
5. Clean all parts, especially the seating surfaces

Assembly:

1. Unpack the new filter cartridge
2. Hang the filter cartridge onto the fixing screws and turn to the stop
3. Tighten the fixing screws evenly, so that the sealing ring touches all round evenly and the filter cartridge hangs vertically

Replacing the filter pads on the fan housing



Procedure

1. Open the retaining grid on the exhaust air housing
2. Check the clean air chamber (for powder deposits), and clean the chamber, if necessary
3. Insert a new filter pad and close the retaining grid

Replacing the solenoid valve on the pressure tank

The solenoid valves are installed on the pressure tank in the exhaust air unit and numbered according to the allocation diagram.

Procedure

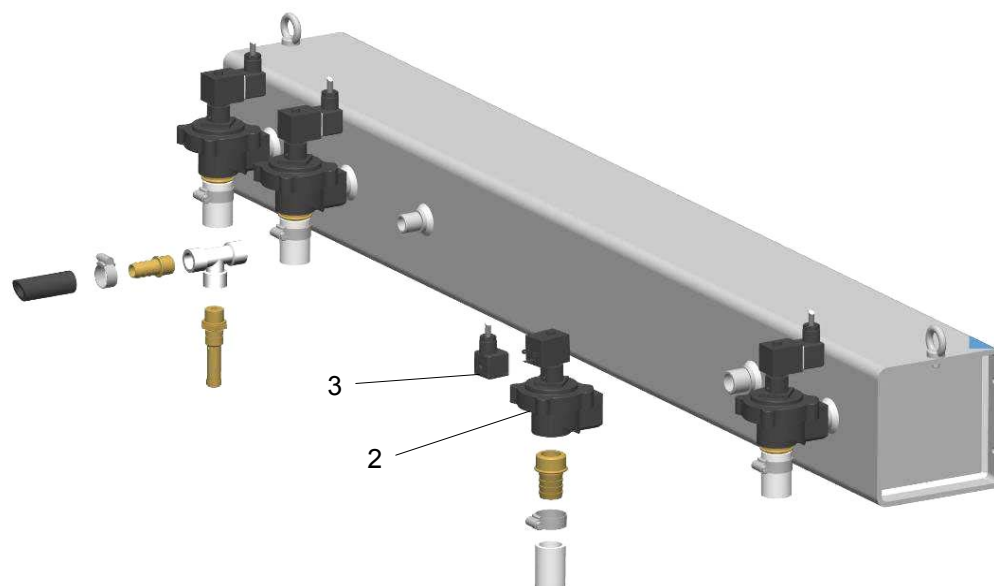
1. Vent the compressed air tank - close the pressure reducing valve on the rear of the booth, and make sure that the pressure gauge shows **0**
2. Press the  switch (filter cartridges cleaning) and check the filter cartridges cleaning (take note of the noise, until air escapes no longer from the pressure tank)
3. Press the  switch again, in order to switch off the cleaning



WARNING:

Danger of injury!

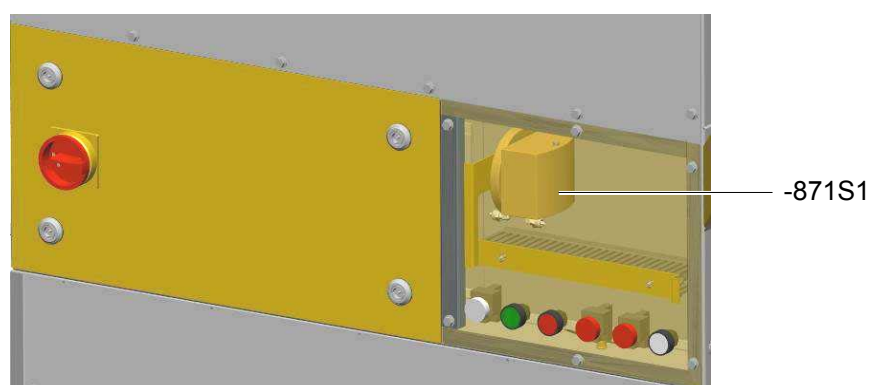
4. Open the retaining grid on the exhaust air housing
5. Remove the air hose from the defective solenoid valve - if several solenoid valves are to be replaced at the same time, the air hoses are to be identified according to the valve
6. Unscrew the plug screw and remove the plug (**3**) with the electric cable
7. Unscrew the solenoid valve (**2**)
8. Install the new solenoid valve and connect it (seal the connection point with PTFE tape or with another suitable sealant)
9. Set the cleaning pressure to 2.5-3 bar on the pressure reducing valve and check the pressure tank for air leaks
10. If no leaks are detected, set the pressure on the pressure reducing valve to 5 bar (recommended)
11. Install the retaining grid on the exhaust air housing again



Replacing the solenoid valve on the pressure tank

Replacing the pressure monitoring manostat

(Filter cartridges differential pressure)



Pressure monitoring manostat

Procedure


1. Loosen the screws and open the control panel
2. Mark the manostat connections (electrical and pneumatic) and loosen them
3. Dismantle the manostat
4. Blow off the air hoses
5. Install the new manostat and connect it

Functional check







A function check is to be carried out:

- after a replacement of spare parts on the electrical/pneumatic part of the booth
- after manipulations on the control unit, respectively on the electrical part of the plant

A prerequisite for making a function check:

- Powder trolley is empty
- The  switch (filter cartridges cleaning) is **Off**

Procedure


1. Turn on the main switch - the lamp  must illuminate, it should not be possible to switch on the electrostatic control unit the fluidization must switch on
2. Press the  button - the exhaust air fan must start, after the start phase the electrostatic control unit must be ready for operation
3. Press the  button - the sieve must start up
4. Press the  switch (filter cartridges cleaning) and check the filter cartridges cleaning (take note of the noise)
5. Press the  switch again, in order to switch off the cleaning
6. Press the  button - the booth must switch off

Troubleshooting

General information


NOTE:

The fault elimination on the electrical part must be carried out only by trained personnel!

Error/fault	Cause	Troubleshooting
The plant is switched off, the lamp  illuminates	Fan motor malfunction, the corresponding motor protection switch is released	Turn off the main switch, let the motor cool down, reset the corresponding motor protection switch (see wiring diagram) and switch on the booth If the malfunction occurs repeatedly, please contact an Gema service center
Powder accumulation on the filter pads in the fan housing	Filter cartridge defective	Replace the filter cartridge, respectively the complete filter set (see therefore chapter "Replacing the filter cartridges")
Filter cartridge is not cleaned.	Solenoid valve (coil) is defective or cable is broken	Replace the defective solenoid valve (coil) Check the cable for cable break
	Control relay defective	Replace the control module (see enclosed wiring diagram)

Spare parts list

Ordering spare parts

When ordering spare parts for powder coating equipment, please provide the following information:

- Model and serial number of your powder coating equipment
- Order number, quantity and description of each spare part

Example:

- **Model** Classic powder coating booth
Serial number 1234 5678
- **Order no.** 203 386, 1 piece, Clamp - Ø 18/15 mm

When ordering cable or hose material, the required length must also be given. The spare part numbers of this yard/meter ware is always marked with an *.

The wearing parts are always marked with a #.

All dimensions of plastic hoses are specified with the external and internal diameter:

Example:

Ø 8/6 mm, 8 mm outside diameter (o/d) / 6 mm inside diameter (i/d)



ATTENTION!

Only original Gema spare parts should be used, because the explosion protection will also be preserved that way. The use of spare parts from other manufacturers will invalidate the Gema guarantee conditions!

ClassicStandard - spare parts list



NOTE:

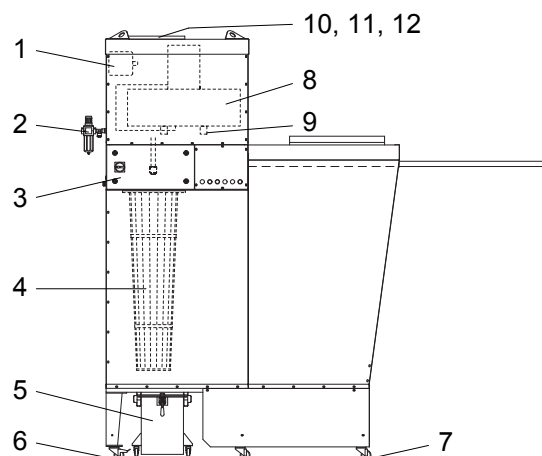
The spare parts mentioned and illustrated in this spare parts list are identical for all booth types!

► Only the number of individual elements may vary!

1	Pressure tank - complete, see corresponding spare parts list	
2	Pneumatic parts - see corresponding spare parts list	
3	Electrical parts - see enclosed wiring diagram	
4	Filter cartridge - Ø 325x1200 mm	1006 090#
5	Powder trolley - complete, see corresponding spare parts list	
6	Swivel wheel, wheel Ø 65 mm, with stop	1005 816
7	Swivel wheel - wheel Ø 65 mm	1005 815
8	Fan - 2.2 kW	1005 876
	Fan cable (for pos. 8 and 8.1) - 4x1.5 mm ²	100 560*
9	Rubber damper - Ø 40x40 mm-M8 (for pos. 8)	258 636#
10	Change-over frame	320 633
11	Filter pad	320 650#
12	Adhesive seal strip - 25x4 mm	100 900*

Wearing part

* Please indicate length



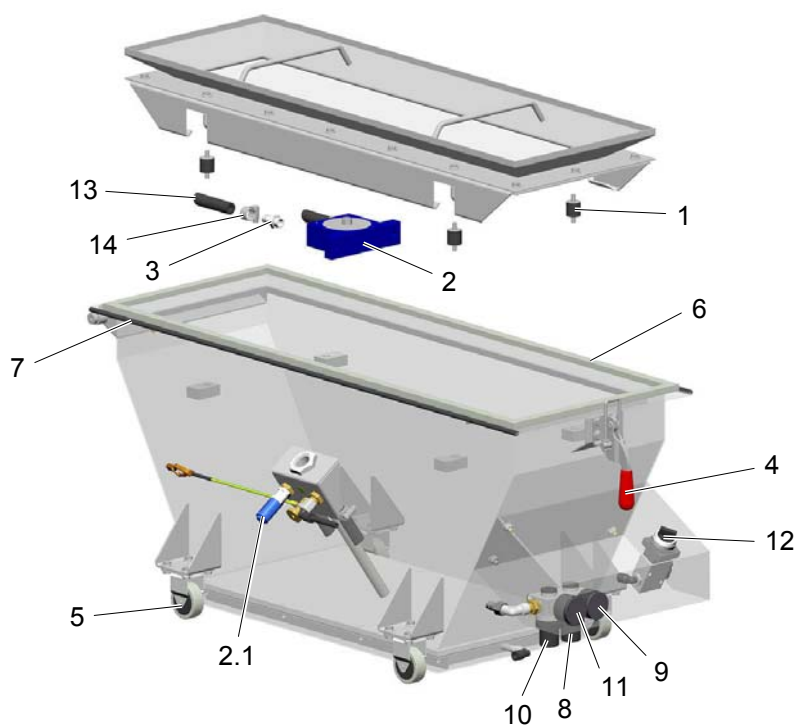
Classic Standard 2

Fluidizing powder trolley – spare parts list

	Powder trolley – complete	1007 710
1	Rubber damper – Ø 20x20 mm	223 808
2	Turbine vibrator – complete, incl. pos. 2.1	1007 761
2.1	Filter	
3	Hose connector – Ø 12 mm, 1/4"	222 348
4	Toggle clamp	247 073
5	Roller – 50 mm	258 571
6	Adhesive seal strip – 15x8 mm	1006 611*#
7	Edge protection profile	100 552*
8	Pressure regulator – 0.5-3 bar, 1/4"	264 334
9	Pressure gauge – 0-4 bar, 1/8"	258 997
10	Pressure regulator – 0.5-6 bar, 1/4"	264 332
11	Pressure gauge – 0-6 bar, 1/8"	258 989
12	Turn-switch – pneumatic	1007 756
13	Hose – Ø 10/17 mm	105 147*
14	Hose clamp – Ø 17-25 mm	223 085

* Please indicate length

Wearing part



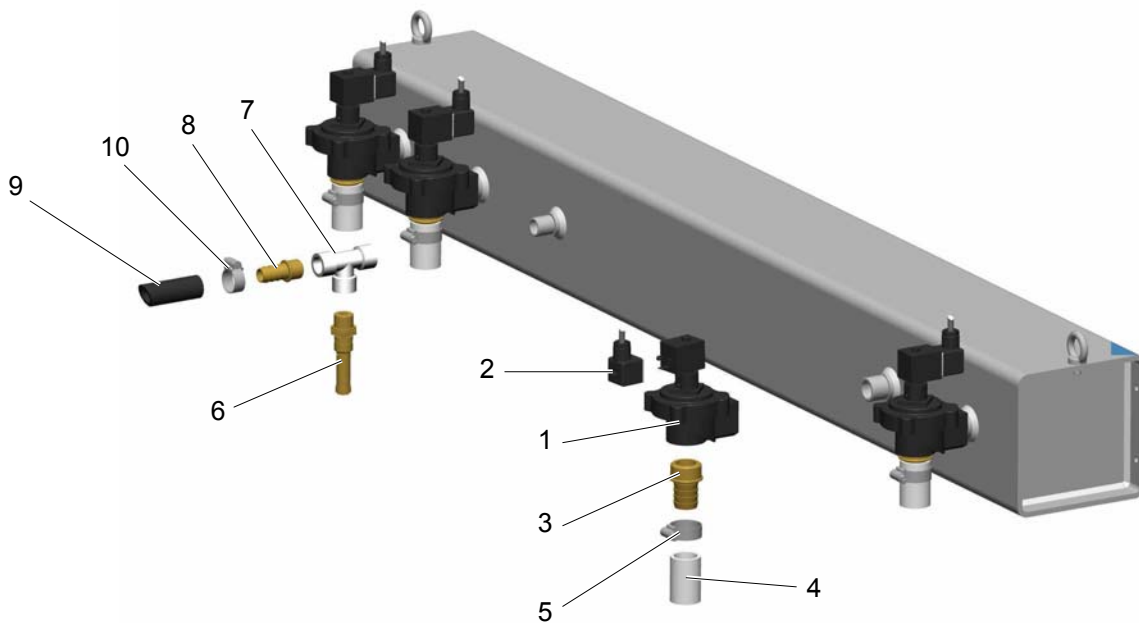
Fluidizing powder trolley – spare parts

Pressure tank - spare parts list

1	Membrane valve - 24 VDC, complete (without pos. 2 and 2.1)	1005 858#
2	Valve cable - complete	1006 075
2.1	Cable (for pos. 2)	103 578*
3	Hose connector - Ø 25 mm, 1"	1005 856
4	Hose - Ø 25/33 mm	104 604*
5	Hose clamp - Ø 25-35 mm	226 335
6	Safety valve	244 910
7	T-piece - 1/2"-1/2"-1/2"	223 131
8	Hose connector - Ø 16 mm, 1/2"	259 268
9	Hose - Ø 16/25 mm	105 155*
10	Hose clamp - Ø 17-25 mm	223 085

Wearing part

* Please indicate length

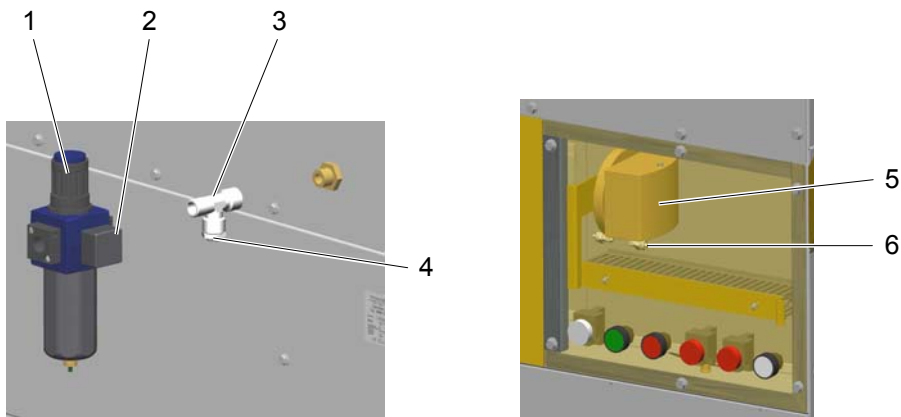


Pressure tank - spare parts

Pneumatic parts - spare parts list

1	Regulator/filter unit	1005 841
2	Pressure gauge - 0-10 bar	203 289
3	T-piece - 1/2"-1/2"-1/2"	223 301
4	Plug cap - 1/4"	263 834
5	Differential pressure switch - 0.5-2.5 kPa	243 736
5.1	Plastic tube - Ø 4/6 mm (for pos. 5)	100 706*
6	Elbow joint complete - Ø 6, 1/8"	242 195

* Please indicate length



Pneumatic parts - spare parts

