

## Operating Manual

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# Integral Compact Filter Steel Booth



**DANGER**

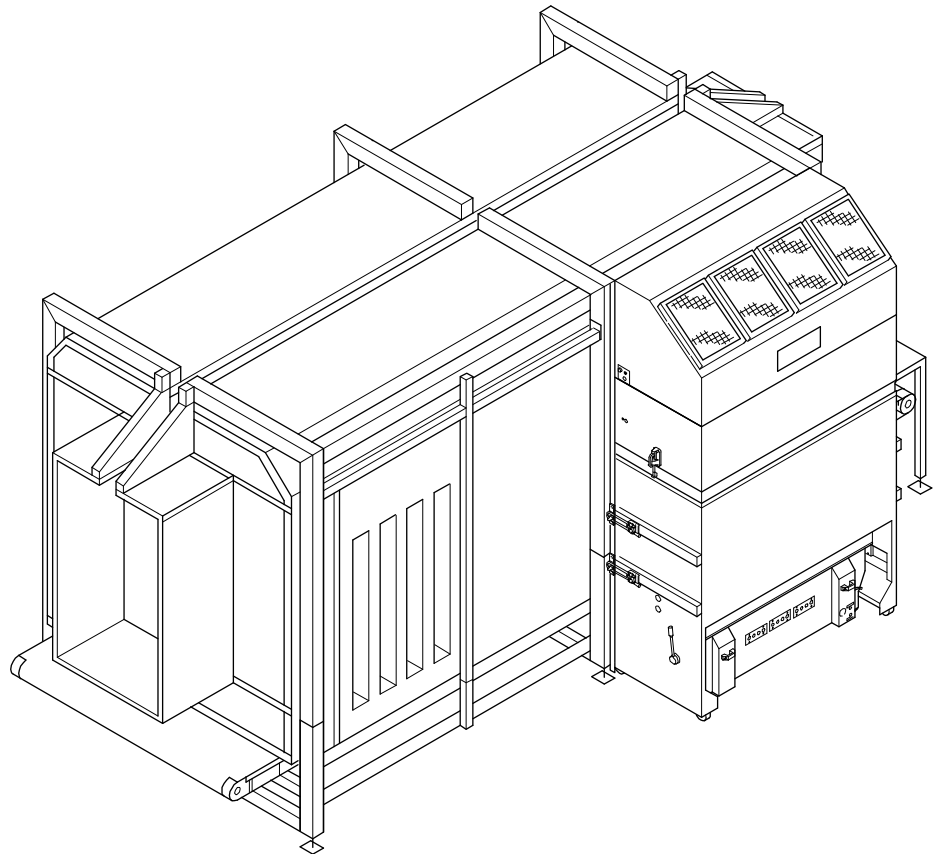


High Voltage!  
Turn power off  
before servicing!



**CAUTION**

Read rules for safe  
operation and  
instructions  
carefully!



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## ICF Steel Booth



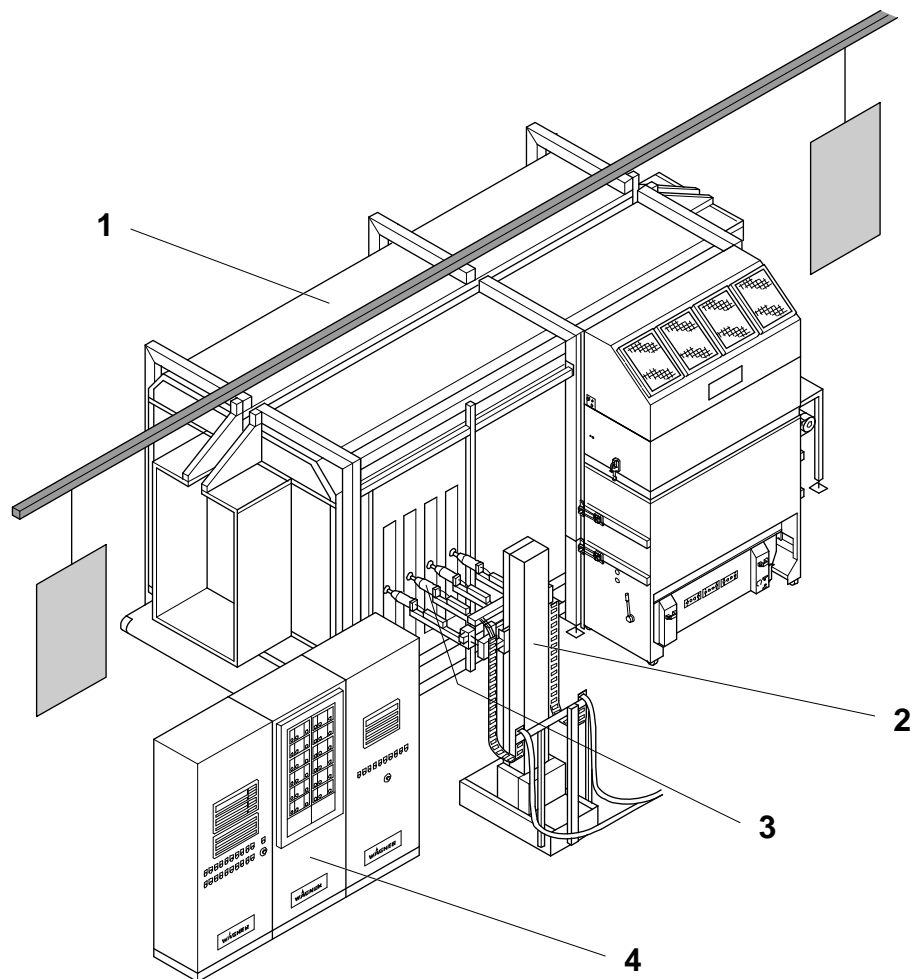
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**ICF Steel Booth**

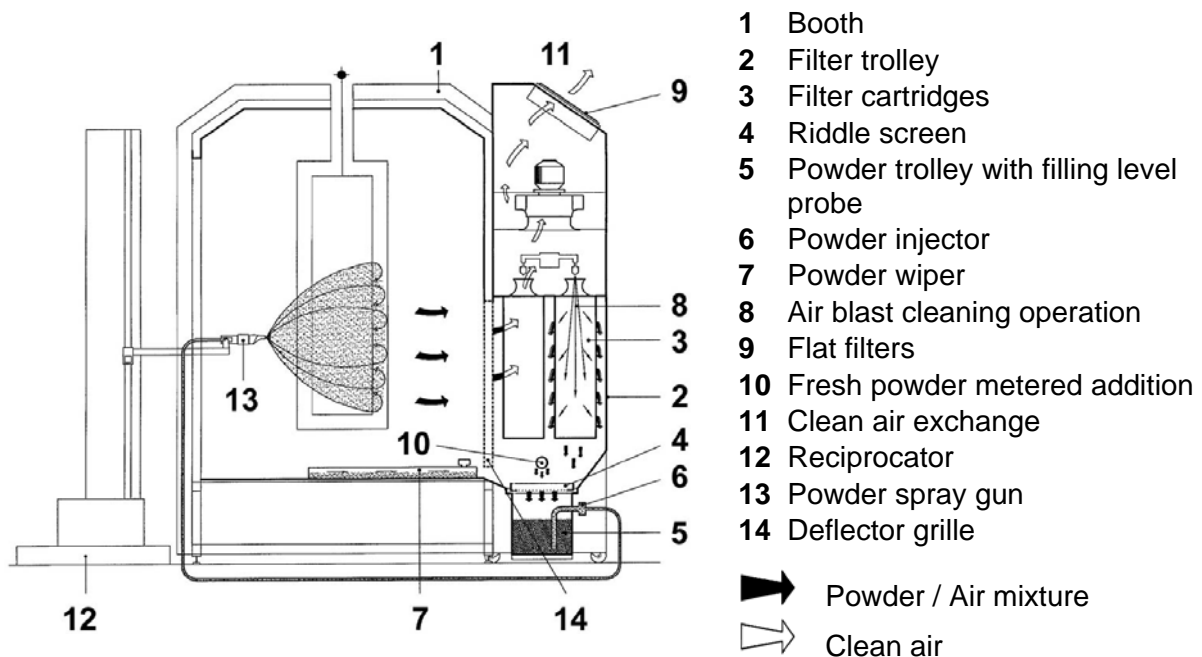
- |   |                 |   |                                       |
|---|-----------------|---|---------------------------------------|
| 1 | ICF Steel Booth | 3 | Powder spray guns                     |
| 2 | Reciprocator    | 4 | Control cabinet (Booth / Application) |

Thanks to the horizontal air feed, the ICF Steel Booth (**I**ntegral **C**ompact **F**ilter) is a compact solution for automatic powder coating and manual coating.

The booth is constructed in different sizes with suitable openings, to accommodate the coating of different sized parts.

With its integrated recovery, the steel booth complies with the valid recovery regulations for electrostatic powder coating. The extracted air is filtered and can be returned to the atmosphere without any problem.

### Operation principle:



With the ICF Booth system, the booth air is captured with overspray powder from the exhaust flow and fed into its own filter system through a deflector grille in the back wall.

The reclaimed powder falls onto the screening unit where it is separated from the particles of dirt and then lands back in the powder trolley. There the powder is fluidized and conveyed through the powder injectors to the powder spray guns. This completes the powder circuit.

An automatic alarm is generated when there is too little powder.

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This manual contains information and hints for the service, repair and maintenance of the equipment. The user must obey all the rules of operation found in this manual; failure to do so will render the warranty invalid.

Wagner powder systems are designed to meet the most stringent safety requirements. They can be operated in compliance with generally applicable safety codes and applicable national safety regulations.

Please pay particular attention to the parts marked by the following symbols. Follow the instructions exactly, in the interests of both your own safety and the correct functioning of the unit.



### Warning

**This symbol draws attention to the fact that if the operating instructions, working instructions, prescribed working sequences etc. are not followed exactly, this can lead to injury or even fatal accidents.**



### Caution

This symbol indicates that failure to follow the operating instructions, working instructions, prescribed working sequences etc. exactly can lead to material damage.



### Hint

This symbol draws your attention to useful additional information and tips. Failure to observe these instructions can cause malfunctions.

# 1. Safety Regulations

## 1.1 Safety advice



### Danger

This equipment can be dangerous if it is not operated according to the definitions in this Operating manual.

**Additionally, country-specific safety regulations in regard to fire protection must be followed,**

The following regulations must be followed by the user to ensure safe and efficient use of the equipment.

- **Under no circumstances should persons with pacemakers be in the area where the high voltage field between the spray gun and the workpiece to be coated builds up.**
- The operating company should also follow the safety guidelines of the VdS and the Employer's Liability Insurance Association.
- The operating company must ensure that an 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 may not exceed 10 g/m<sup>2</sup>.

If it becomes evident that the powder concentration exceed the permitted values in the case of high total powder discharge, the operating company must discuss the situation with the powder manufacturer. In this case, there is usually a significantly higher permitted maximum powder concentration through the exact calculation of the LEL.

The following table should provide a guide:

	8,000 m <sup>3</sup> /h		12,000 m <sup>3</sup> /h	
	Untested powder	Tested powder, e.g. LEL ≥ 40 g/m <sup>3</sup>	Untested powder	Tested powder, e.g. LEL ≥ 40 g/m <sup>3</sup>
Permitted dust concentration	10 g/m <sup>3</sup>	20 g/m <sup>3</sup>	10 g/m <sup>3</sup>	20 g/m <sup>3</sup>
Maximum total powder discharge g/h	75000	150000	120000	240000
= g/min	1250	2500	2000	4000
Powder discharge per gun 150 g/min	Maximum 8 guns	Maximum 16 guns	Maximum 13 guns	Maximum 26 guns
Powder discharge per gun 300 g/min	Maximum 4 guns	Maximum 8 guns	Maximum 6 guns	Maximum 13 guns

The permitted number of guns increases accordingly with guaranteed LEL values over 40 g/m<sup>3</sup>.

- The connection for mains supply for the operation of the Wagner powder equipment **must** be electronically interlocked with the powder spray system exhaust equipment.
- The grounding of all booth elements must be guaranteed according to regulations.
- **Grounding cables must** be checked regularly to ensure that they are serviceable (see EN 60204).
- The operating company should arrange faults or defects to be repaired without delay.
- Repairs may only be carried out by a specialist, who has received appropriate training.
- Under no circumstances may repairs be carried out in the potentially explosive area.
- The floor of the working area **must** be electrostatically conductive. (as measured by EN 1081)
- All conductive parts in the working area (within a radius of 1 meter around each spray gun and/or booth opening) must be electro-statically grounded.
- All persons within the working area must be wearing electro-statically conductive shoes.
- Gloves may not be worn. If gloves are used, they **must** be made of conductive material.
- Only mobile industrial vacuum cleaners of design 1 (see ZH 1/487 for C dusts) may be used for getting rid of dust build-ups.
- Accessing the booth is prohibited during operation.
- In rooms or areas at risk of fire, suitable fire extinguishers must be available in sufficient quantities and must be maintained in an operational condition.
- **Wear suitable working clothes.**
- **Use breathing protection during dust-creating work.**
- **Don't bend down to work in the booth.**  
If necessary, use an extension for the hand spray gun.
- **Check your equipment for signs of damage.**  
Check that any lightly damaged parts function correctly before using the equipment. Check whether movable parts are working correctly, whether they are not jamming and whether parts are damaged. Damaged parts should be repaired by a Wagner Customer Service Point or exchanged.
- **Risk of falling:**  
The booth floor should only be walked on once it has been cleaned.
- **Risk of injury:**  
Depending on the operating state, the surface temperature of the conveyor belt drive motor can reach 90 °C.
- **Risk of explosion:**  
No plugged connections should be opened during operation.
- **Guideline 94/9/EC:** The equipment is suitable for use in potentially explosive atmospheres if used correctly.



### Danger

**For your own safety, you should only use accessories and auxiliary equipment that is defined in the operating manual. Usage of other parts can result in a risk of injury.**

**Only use original Wagner spare parts.**

**Modifications of or repair to the Wagner original spare parts can result in fatal accidents or to explosions in the coating system.**

**A maximum of two persons may be in the booth.**

## 1.2 Safety signs

The powder coating booth is equipped with advice signs at the points of access and working apertures. The following signs are used:

The size of the signs conforms to the standard 100 mm Ø range.

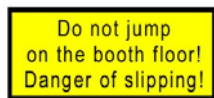
The following identification signs should be installed.



High voltage



Risk of falling down



Explosive atmosphere



Please follow the operating manual



Forbidden for unauthorized persons



Access prohibited to persons wearing a heart pacemaker



Fire, unprotected lights and smoking prohibited



Electro-statically conductive shoes must be worn



### 1.3 EU Declaration of conformity

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Wagner hereby declares that the unit described in these operating instructions has been designed and manufactured according to the provisions of EU Directives 98/37/EC, 94/9/EC, 73/23 EEC and 89/336 EEC.

The following **European standards** were applied:

EN 12100-1/-2	EN 50281-1-1/-1-2	EN 61000-6-1
EN 61000-6-2	EN 61000-6-3	EN 60204-1
EN 50053-2	EN 50050	EN 50177

The following **German standards** and/or Guidelines were applied:

BGI 764

The product includes an **EU declaration of conformity**. This can be ordered again if necessary from your WAGNER dealer by giving details of the product and serial number involved.

The EU Declaration of conformity has the number **3304094**.

HAZARD	PREVENTION
<p>Electrostatic arcing may cause an explosion or fire. Mixtures of powder and air can explode or ignite causing property damage and/or severe injury.</p>	<ul style="list-style-type: none"> <li>• Operator must be grounded. Grounding straps must be used when wearing rubber soled shoes.</li> <li>• Operator must remove all metallic objects from his or her person, which are not grounded.</li> <li>• The object being sprayed must be grounded.</li> <li>• All metallic objects within the spray area must be grounded (including spray booth, part hangers, fire extinguishers, etc.)</li> <li>• Grounded conductive floor must be provided in spray area.</li> <li>• Turn off the Power Pack and unplug from outlet before flushing out the gun, cleaning or replacing parts on the gun such as changing tips.</li> </ul>
<p>Explosion or fire. Mixtures of powder and air can explode or ignite causing property damage and/or severe injury.</p>	<ul style="list-style-type: none"> <li>• Exhaust and fresh air introduction must be provided to keep the air within the spray area free of accumulation of flammable atmosphere.</li> <li>• Smoking must not be allowed in spray area.</li> <li>• Fire extinguishing equipment must be present and in working order.</li> <li>• Electrostatic arcing must be prevented. (See Electrostatic arcing)</li> <li>• When cleaning the system, use only materials recommended by the coatings manufacturer. Be sure Power Pack is turned off and unplugged.</li> <li>• Avoid all ignition sources such as static electricity sparks, open flames such as pilot lights, hot objects such as cigarettes and sparks from connecting and disconnecting power cords and working light switches.</li> <li>• To prevent hazardous concentrations of flammable atmospheres, spray only in a properly ventilated spray booth.</li> <li>• Never operate spray gun unless ventilation fans are operating properly.</li> <li>• Check and follow all National, State and Local codes regarding air exhaust velocity requirements.</li> <li>• Ventilation must be maintained during the cleaning operation.</li> </ul>
<p>Toxic Substances: Some materials may be harmful if swallowed or come in contact with the skin.</p>	<ul style="list-style-type: none"> <li>• Follow the requirements of the Material Safety Data Sheet supplied by the coatings manufacturer.</li> <li>• Exhaust and fresh air introduction must be provided within the spray area to keep the air free of high powder accumulations.</li> <li>• Wear a mask or respirator. Read all instructions for the mask to insure that it will provide the necessary protection against the inhalation of powder.</li> </ul>
<p>General</p>	<ul style="list-style-type: none"> <li>• Read all instructions and safety precautions before operating.</li> <li>• Comply with all appropriate local, state and national codes governing ventilation, fire prevention, and operation of Electrostatic equipment usage.</li> <li>• The United States Government Safety Standards have been adopted under the Occupational Safety and Health Act. These standards, particularly the General Standards, Part 1910 and the Construction Standard, Part 1926, should be consulted.</li> <li>• NFPA Standard No. 33 is to be followed when setting up your spray area. Contact the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts, 02269 for more information.</li> <li>• Check with insurance company for additional requirements.</li> <li>• Use only identical replacement parts.</li> <li>• Personnel must be given training in accordance with the requirements of NFPA Standard No. 33 chapter 18.</li> <li>• It is the duty of all personnel responsible for the spray equipment operation and maintenance to read and understand all safety information furnished with this equipment.</li> </ul>

## 2. Preparation for commissioning the equipment

### 2.1 Transport, handling and installation of the equipment

The powder coating booth is delivered in parts to the assembly point. Assembly is done on site.



#### Danger

- The powder coating system must be equipped with the corresponding warning signs at the prescribed location, in accordance with the "Assembly instruction signs".
- The powder coating system may not be used without these signs being in place.

The prescribed safety measures (protective clothing, material, etc) must be adhered to during all transport, handling and assembly work.

### 2.2 Conditions for perfect operation

#### 2.2.1 Supply connections

##### Electrical connection:

Three-phase current connection: 220-240 / 380-420 V at 50 Hz  
 (in accordance with IEC 38)  
 System ground (strip or ground rod): In accordance with VDE 0141 with NYAF > 16 mm<sup>2</sup>

##### Pneumatic connection:

Compressed air connection: .....87 ... 116 psi (6 ... 8 bar)

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##### Required compressed air quality:

Quality class	Compressed air quality according to ISO 8573.1	
5	Max. residual water: (pressure dew point in °F at 100 psi / °C at 700 kPa)	+44.6 °F / +7 °C
2	Max. oil contents:	0.1 mg oil/m <sup>3</sup> / 0.1 oz/ft <sup>3</sup>
3	Max. concentration:	5 mg/m <sup>3</sup> / 5 oz/ft <sup>3</sup>
3	Max. particle size:	5 μm / 5 microns

##### Ambient conditions:

If low temperature powders are used, the ambient temperature may have to be lower than 86 °F (30 °C).



##### Volume measures:

For volumes, specified in Nm<sup>3</sup> (standard cubic meters). One cubic meter of a gas at 32 °F (0 °C) and 1.013 bar is called norm cubic meter.

1 Nm<sup>3</sup>/h = 35.3 ft<sup>3</sup>/h; 1 bar = 14.504 psi



**Caution**

A high compressed air quality is required for the safe operation of the equipment.  
**If the equipment should be damaged as result of having insufficient air quality, the operating company has to bear the costs of rectifying the damage itself.**

Wagner offers a maintenance unit for this purpose.

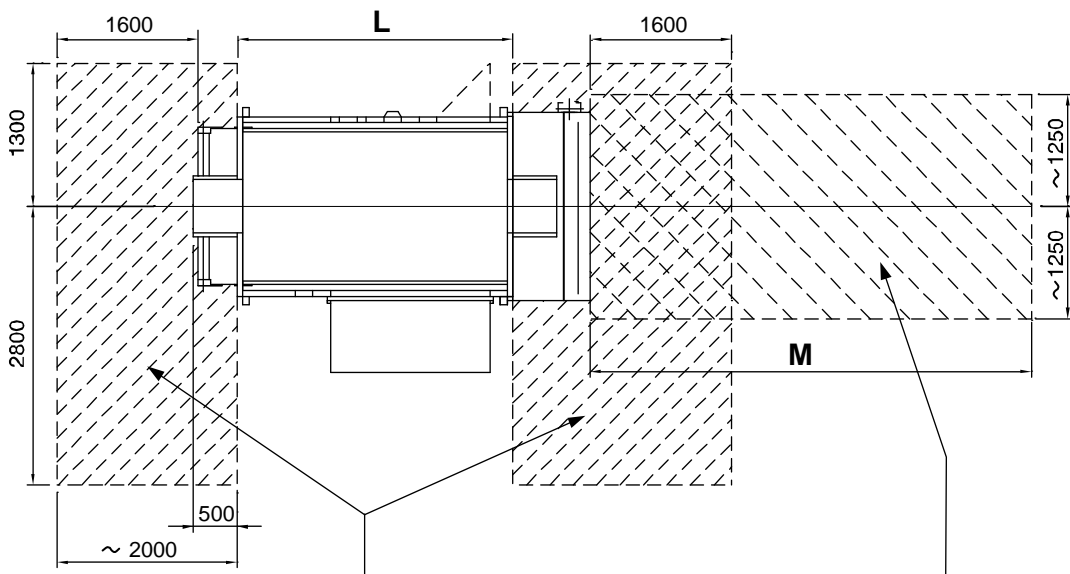
Seek advice from the Wagner Service Team.

**Compressed air requirement:**

The compressed air requirement is very dependent on the number of guns and the frequency of color changes. It is not possible to give a fixed value here.

**2.2.2 Requirements to be met by the place of installation**

- The steel booth may not be installed at locations subject to high temperatures. Powder types that gel easily should be processed cool. When using low-melting powder types, it can be necessary to have an ambient temperature of under 86 °F (30 °C).
- Relative air humidity may be a maximum of 75 %.
- The minimum space between the blow-out opening from the final filter device **must** be 1.00 meter.



Space requirement for carrying out maintenance on the powder discharge belt

**Up to booth length: L = 4,800 mm:**  
 $M = L + 2,000 \text{ mm}$

Space requirement for assembling and exchanging the powder discharge belt

**Up to booth length: L = 4,800 mm:**  
 $M = (L/2) + 1,400 \text{ mm}$

### 2.2.3 Control and settings of the system



#### Caution

The operating manual **of the corresponding control cabinet** must be followed for the **control unit and commissioning** of the steel booth.

- You will find a detailed description of the control unit in the special Control unit Operating manual supplied.

## 2.3 Grounding

The **steel both must** be completely grounded for safety reasons. Wagner recommends the use of copper cable of at least 16 mm<sup>2</sup>, with sufficient mechanical stability, for connecting to the operating ground. Please also refer to the powder spray gun Operating manual.

In order to achieve an optimum powder coating, the **workpiece** must also be well grounded. Bad grounding has the following effects:

- dangerous electrical charging of the workpiece
- back-spray on guns and operators
- unbalanced coating
- very bad wrap-around



### Danger

**If hooks or other hanger parts do not have all the paint removed, ignitable sparks can occur between workpiece and hangers.**

**These sparks can cause strong radio frequency interferences.**

Requirements for a good grounding and coating are:

- a conducting suspension for the workpiece that is to be coated as far as the transport equipment
- a grounding of the powder booth, transport and suspension equipment to be supplied on site with a copper cable of at least 16 mm<sup>2</sup> to the operating ground, with no loops and nodes, kept as short as possible
- a regular cleaning of powder deposits from the hangers
- a grounding resistance for the workpiece of a maximum of 1 MΩ (mega ohm)
- a grounding cable connected to the controller module or control cabinet

## 2.4 Flame detection system and fire extinguishing measures

Flame detectors can be installed in the ICF Steel booth at the prepared locations, which trigger an immediate discharge of extinguishing gas when a fire is detected (see also the extinguisher operating manual).



### Hint

If required, the fire detection and extinguisher equipment **must** be planned and installed **separately**. They are **not** supplied with the booth.

### 3. Operation

#### 3.1 Switching the system on

Proceed as follows:

1. Switch the compressed air on.
2. Switch the main switch on.
3. Switch the fire extinguisher on (if installed) and acknowledge this.
4. Activate the grounding system (if installed).
5. Switch the ventilator on.



#### Caution

Wait for the **Booth OK** signal.

6. Switch the final filter cleaning operation on.
7. Switch the powder discharge belt suction on (if installed).
8. Switch the powder discharge belt on (if installed).
9. Move the spray guns into the booth.
10. Switch the reciprocators on.
11. Switch the spray guns on.
12. Switch the high voltage for the spray guns on (not in the case of Tribo spray guns).



#### Hint

If the distance between the Powder spray guns and the Powder discharge belt is too small (< 200 mm), this can impact negatively on the cleanability of the belt because of the static charging.

#### 3.2 Switching the system off

In the case of a break in work, powder residues must be thoroughly removed from all the powder-conveying parts throughout the complete coating system.

Proceed as follows:

1. Switch the powder feed and the high voltage for the spray guns off and secure them against being switched on again unintentionally.
2. Carry out a general cleaning of the inside of the booth.
3. Use the suction to clean along the whole length of the powder discharge belt, if installed.
4. Switch the main switch off.

### 3.3 Carrying out a color change

In the case of a color change, powder residues **must** be **thoroughly** removed from all the powder-conveying parts throughout the complete coating system.

When cleaning the equipment, the regained powder is fed back into the powder trolley. For this reason, check whether the powder trolley has enough capacity free for the powder before starting and empty it if necessary.

The cleaning sequences described in the following are a recommendation. The actual process must be modified to match the individual configuration of the equipment.



#### Caution

The booth extraction and the filter cleaning operation **must remain switched on** at each color change.

#### 3.3.1 Color change with a steel booth with powder discharge belt



#### Caution

The powder discharge belt **must** be switched off before each color change and the build-ups of powder that fall from the walls **must** be removed.

Proceed as follows:

1. Leave the booth extraction with the filter cleaning operation and the powder discharge belt suction **switched on**.
2. Switch the powder feed and the high voltage for the spray guns off and secure them against being switched on again unintentionally.
3. Switch the powder discharge belt off.
4. Carry out a general cleaning of the inside of the booth using a hand scraper.
5. Move the powder build-ups in the direction of the filter trolley.
6. Switch the powder discharge belt back on.
7. Disconnect the powder hoses from the powder trolley, blow them out and reattach them.
8. Carry out a further general cleaning of the inside of the booth using a hand scraper.
9. Clean the guns and dismantle them if they are very dirty.
10. Clean the guns and gun holders externally with air. Move the cleaned guns out of the booth.
11. Switch the booth extraction and the powder discharge belt suction off.
12. Disconnect the pneumatic and electrical plug connectors and the powder hoses from the powder trolley..
13. Disconnect the filter trolley and move it, with the powder container, away from the booth.
14. Carry out a thorough cleaning of the complete booth using a vacuum cleaner and dusting cloth.
15. Connect up a new filter trolley.



16. Connect up a new powder container.
17. Swap the powder hoses for new ones.
18. Connect the pneumatic and electrical plug connectors to the new powder trolley
19. Carry out a final inspection.

### 3.3.2 Color change with a steel booth with fixed floor

Proceed as follows:

1. Leave the booth extraction with the filter cleaning operation **switched on**.
2. Switch the powder feed and the high voltage for the spray guns off and secure them against being switched on again unintentionally.
3. Carry out a general cleaning of the inside of the booth using a hand scraper.
4. Move the powder build-ups in the direction of the filter trolley.
5. Dismantle the wiper and clean it.
6. Disconnect the powder hoses from the powder trolley, blow them out and reattach them.
7. Carry out a further general cleaning of the inside of the booth using a hand scraper.
8. Clean the guns and dismantle them if they are very dirty.
9. Clean the guns and gun holders externally with air. Move the cleaned guns out of the booth.
10. Switch the booth extraction off.
11. Disconnect the pneumatic and electrical plug connectors and the powder hoses from the powder trolley.
12. Disconnect the filter trolley and move it, with the powder container, away from the booth.
13. Carry out a thorough cleaning of the complete booth using a vacuum cleaner and dusting cloth.
14. Connect up a new filter trolley.
15. Connect up a new powder container.
16. Swap the powder hoses for new ones.
17. Connect the pneumatic and electrical plug connectors to the new powder trolley.
18. Reassemble the wiper.
19. Carry out a final inspection.

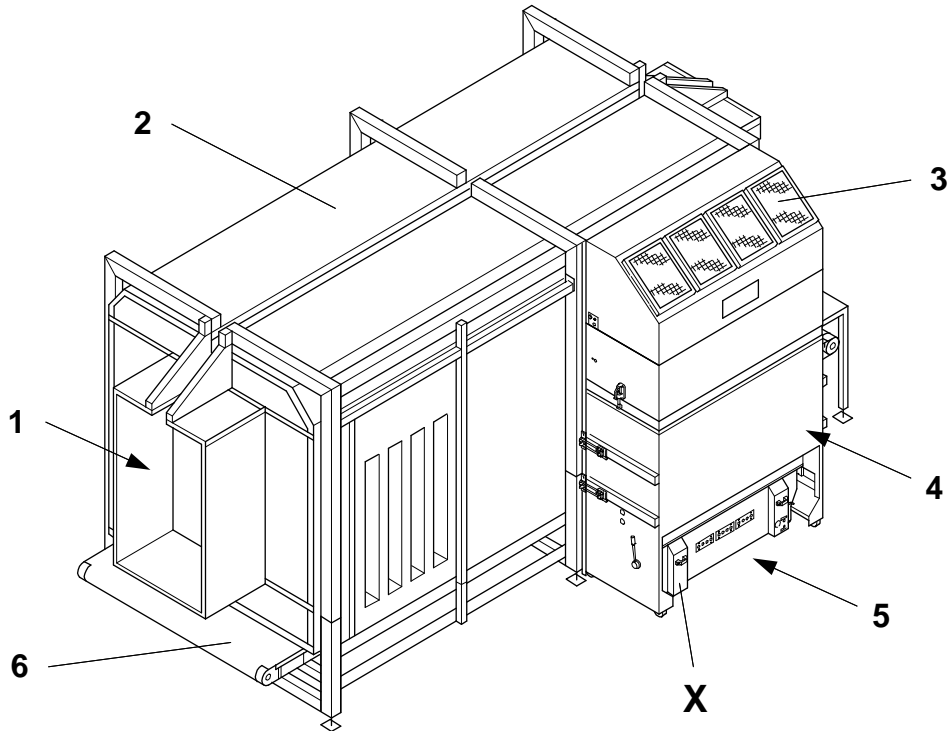
## 4. Maintenance and Cleaning



### Caution

Maintenance and repair may only be carried out by trained personnel.

The complete system **must** be switched off before starting the maintenance work and **secured against being switched on again unintentionally.**



Item	Designation	Inspection	Comments
1	Inside of the booth	Several times a day, if required	Large build-ups of powder must be removed immediately.
2	Booth roof, exhaust ducts, etc.	Monthly	Use suction to clean them from the outside, in order to avoid dust build-ups.
3	Flat filter	Weekly	Swap the flat filters if they are very dirty and check the condition of the filter cartridges.
4	Filter cartridges	If there is a malfunction in the automatic cleaning operation	If the seal or filter material is damaged, change them immediately.



### Danger

There is a risk of injury when moving trolley X in.

<b>Item</b>	<b>Designation</b>	<b>Inspection</b>	<b>Comments</b>
5	Screening unit	At least once a day	Remove any dirt residues and blow through the surface of the screen with compressed air.
6	Powder discharge belt (if installed)	Let it run until the powder has been completely removed from the belt by the suction.	Check for any signs of damage to the belt.

## 5. Rectification of malfunctions

Malfunction	Cause	Remedy
Suction capacity is too weak (safety switch-off is triggered).	<ul style="list-style-type: none"> <li>- The fuses are faulty.</li> <li>- Filter cleaning operation is not switched on.</li> <li>- The solenoid valves in the filter system are faulty.</li> </ul>	<ul style="list-style-type: none"> <li>- Swap the fuses out.</li> <li>- Switch on and shorten the cleaning intervals if necessary (program clock generator in the control cabinet).</li> <li>- Swap the solenoid valves out if necessary.</li> </ul>
Dust discharge at the fan output.	<ul style="list-style-type: none"> <li>- Filter cartridges are installed incorrectly.</li> <li>- The filter cartridges seals are faulty.</li> <li>- Filter cartridge is damaged.</li> <li>- The rotary air nozzles are faulty.</li> </ul>	<ul style="list-style-type: none"> <li>- Install the filter cartridges correctly.</li> <li>- Swap out the foam rubber gasket.</li> <li>- Swap out the filter cartridge.</li> <li>- The rotary air nozzles must be able to turn freely. If necessary install the filter correctly and/or clean the rotary air nozzles.</li> </ul>
Excessive noise and/or vibration in the fan.	<ul style="list-style-type: none"> <li>- Faulty bearings in the fan.</li> <li>- Build-up of dust on the fan blades.</li> </ul>	<ul style="list-style-type: none"> <li>- Swap out the bearings.</li> <li>- Clean the fan blades.</li> </ul>
The sieve is not separating any dirt out.	<ul style="list-style-type: none"> <li>- The sieve frame is faulty.</li> </ul>	<ul style="list-style-type: none"> <li>- Swap out the sieve frame with the screen mesh.</li> </ul>

Malfunction	Cause	Remedy
The sieve does not let any more powder through.	<ul style="list-style-type: none"> <li>- The screen mesh is clogged.</li> <li>- The powder is lumpy, e.g. through oil, air humidity or the start of polymerization caused by too high a temperature.</li> <li>- The sieve frame rubber bearing is faulty.</li> </ul>	<ul style="list-style-type: none"> <li>- Clean off the dirt using a vacuum cleaner with a soft cleaning head.</li> <li>- If necessary, the powder must be changed completely.</li> <li>- Replace the round rubber bearing.</li> </ul>
No powder feed	<ul style="list-style-type: none"> <li>- Too little powder in the circuit.</li> <li>- The fluid base of the powder trolley is dirty or damaged.</li> <li>- The injector is clogged or worn.</li> <li>- The powder hose is dirty or kinked.</li> <li>- The guns are clogged.</li> <li>- Insufficient conveyor or dosage air.</li> </ul>	<ul style="list-style-type: none"> <li>- Top up the powder.</li> <li>- If the air supply is sufficient, clean or exchange the fluid base.</li> <li>- Clean or swap out the worn parts.</li> <li>- Clean the powder hose and make sure there are no kinks in it.</li> <li>- Clean the guns.</li> <li>- Check the air supply.</li> </ul>
The wiper doesn't move.	<ul style="list-style-type: none"> <li>- The air hoses are not connected.</li> <li>- The limit switch on the rotation cylinder is not connected and/or not set correctly.</li> </ul>	<ul style="list-style-type: none"> <li>- Connect the air hoses.</li> <li>- Connect the limit switch and/or set it correctly.</li> </ul>

## 6. Spare Parts Lists and Accessories

### 6.1 How to order spare parts

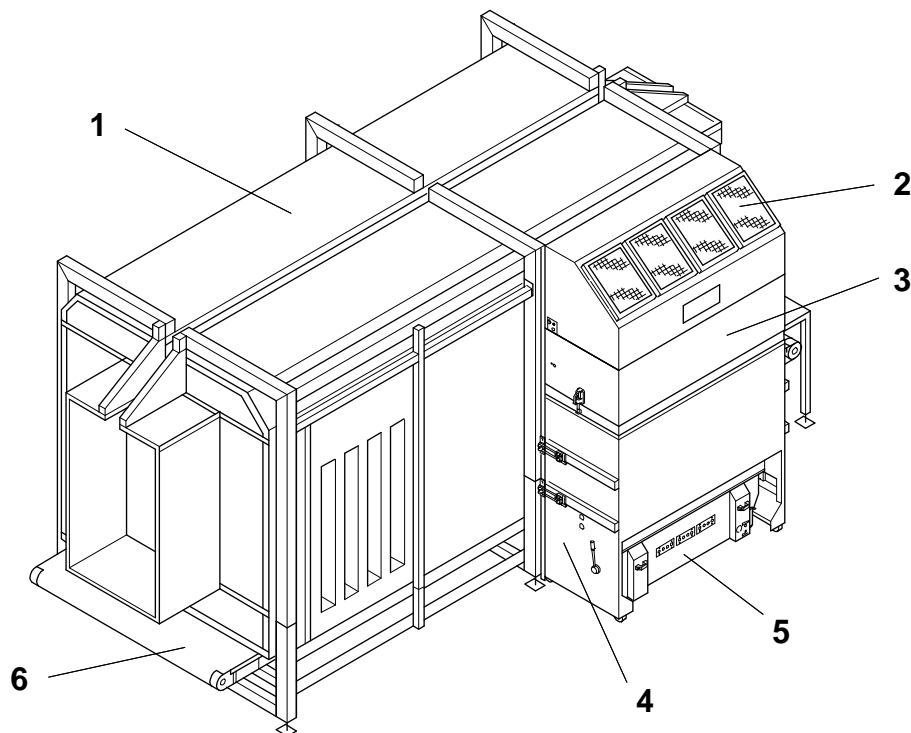
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Faulty and unserviceable parts are replaced in accordance with our General Terms and Conditions of Delivery.

In order to be able to guarantee safe and smooth spare parts delivery, the following information is necessary:

- Invoicing address
- Delivery address
- Name of contact persons for check back
- Type of delivery
- Quantity ordered, article number and designation

### 6.2 Booth

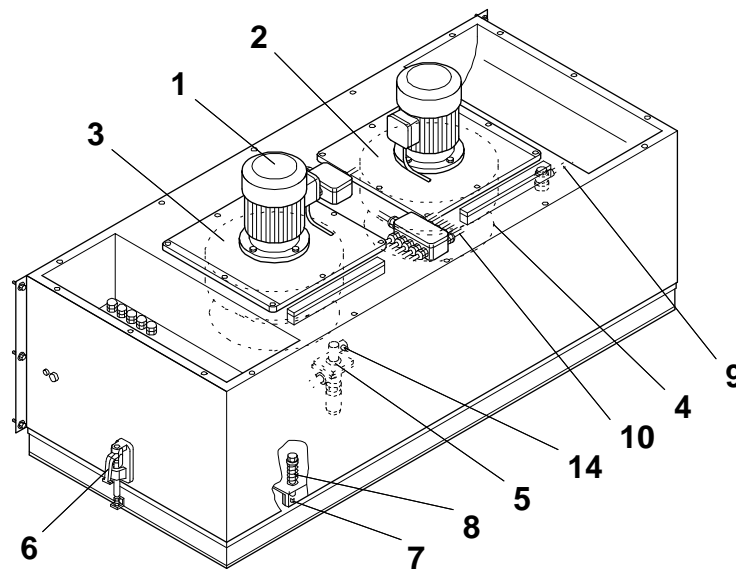


Item	Article No.	Designation	Suction capacity
1	-- *	Steel booth	
2	3059080	Exhaust box	8,000 m <sup>3</sup> /h
	3059990	Exhaust box	12,000 m <sup>3</sup> /h
3	3059100	Fan box	8,000 m <sup>3</sup> /h
	3059980	Fan box	12,000 m <sup>3</sup> /h
4	3059060	Filter trolley	8,000 m <sup>3</sup> /h
	3060002	Filter trolley	12,000 m <sup>3</sup> /h
5	-- **	Powder trolley with screening unit and powder feed for the powder injectors.	
6	-- *	Powder discharge belt with suction	

\* Length as required

\*\* Model available on request

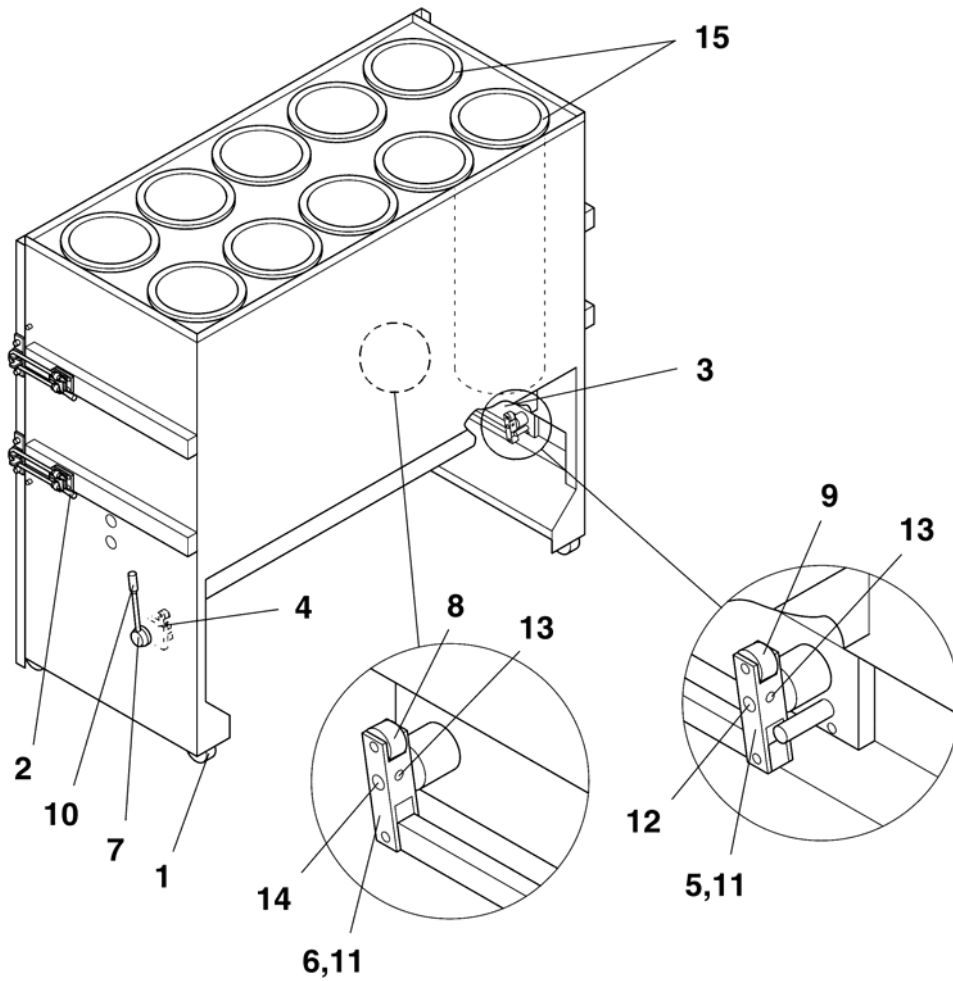
### 6.3 Fan box



Item	Article No.	Designation	Suction capacity
1	3302585	FDR 90L/2P 2.2 kW motor	8,000 m <sup>3</sup> /h
	3302185	FDR 112M2. 4 kW motor	12,000 m <sup>3</sup> /h
2	3054920	Radial fan rotor, right-handed rotation	8,000 m <sup>3</sup> /h
	3059991	Radial fan rotor, right-handed rotation	12,000 m <sup>3</sup> /h
3	3054919	Radial fan rotor, left-handed rotation	8,000 m <sup>3</sup> /h
	3059992	Radial fan rotor, left-handed rotation	12,000 m <sup>3</sup> /h
4	3054917	Inflow nozzle 280	8,000 m <sup>3</sup> /h
	3059993	Inflow nozzle 315	12,000 m <sup>3</sup> /h
5	3303998	Solenoid valve (2/2-WV) R3/4"	8,000 m <sup>3</sup> /h
	3303999	Solenoid valve (2/2-WV) R1"	12,000 m <sup>3</sup> /h
6	3059109	Driving rod clamp	
7	3059110 *	Foam rubber sealing strips	
8	3059111	Compression spring	
9	3051701	PVC hose, external diameter, 10.5 x 1.25	
10	3052374	Öflex number cable 7G x 1.5 mm <sup>2</sup>	
14	3113994	Valve connector	

\* Wearing part

**6.4 Filter trolley**

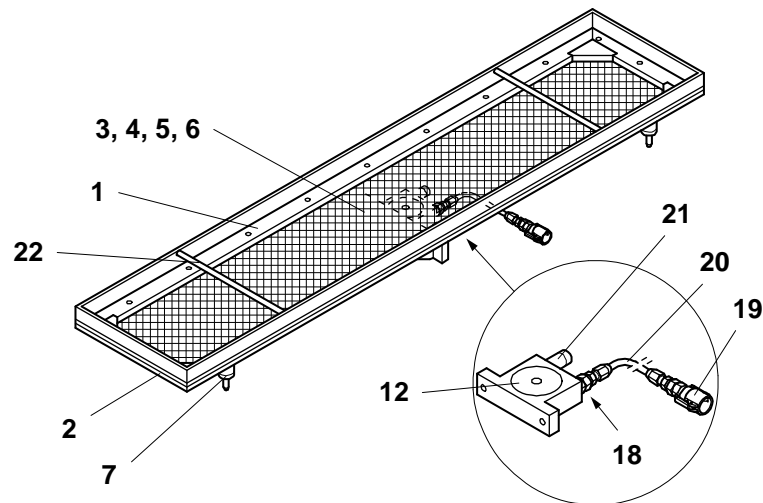


Item	Article No.	Designation	
1	3053882	NLK 100-5 Single caster	
2	3059063	Clamp / locking ring	
3	3053977	Righthand clamping unit	
4	3053978	Lefthand clamping unit	
5	3054022	Operating lever (included in item 3 and 4)	
6	3054023	Operating lever (included in item 3 and 4)	
7	3054029	Boss (included in item 3 and 4)	
8	3053979	Roll (included in item 3 and 4)	
9	3055669	Roll (included in item 3 and 4)	
10	3053876	Handle bar (included in item 3 and 4)	
11	3054024	Fork (included in item 5 and 6)	
12	3054025	Shaft (included in item 5)	
13	3056742	Clamping sleeve (included in item 5 and 6)	
14	3054026	Axle (included in item 6)	
15	3131047 *	Filter cartridge	Suction capacity: 8,000 m <sup>3</sup> /h
15	3131048 *	Filter cartridge	Suction capacity: 12,000 m <sup>3</sup> /h

\* Wearing part



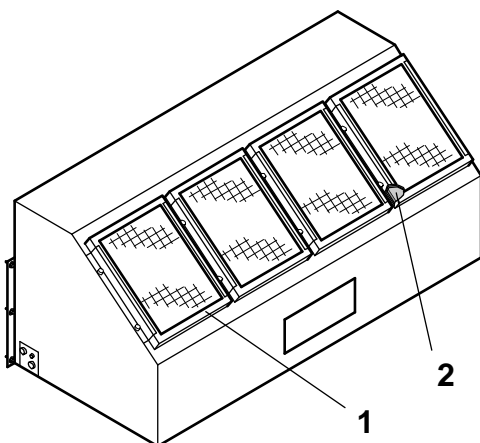
## 6.5 Vibrating sieve



Item	Article No.	Designation
	<b>3059011</b>	<b>Vibrating sieve</b>
1	3059012	Sieve frame
2	3059013	Stretcher
3	3054633	Support grille
4	3055202	Tesa Fix (double-sided self-adhesive)
5	3107857 *	Nylon mesh, 310 µm
6	3054634	Cell rubber band (single-sided self-adhesive)
7	3054635	Round rubber seal
12	3020188	Turbine Vibrator (type VT17)
18	3050149	Sealing ring (aluminum 14 x 18 x 1.3)
19	3050996	Quick-action coupling
20	3054640	Grounded compressed air connection for turbine vibrator (item 12).
21	3103059	Air filter
22	3059013	Handle

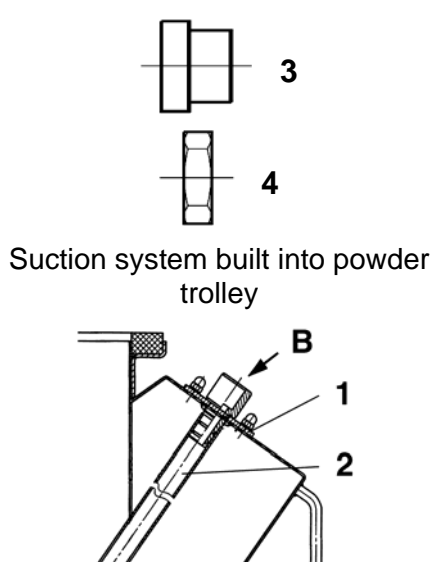
\* Wearing part

## 6.6 Exhaust box



Item	Article No.	Designation
1	3303795	Exhaust grille assembly
2	3059483	Flat filter 495 x 393 mm

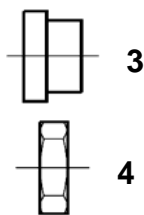
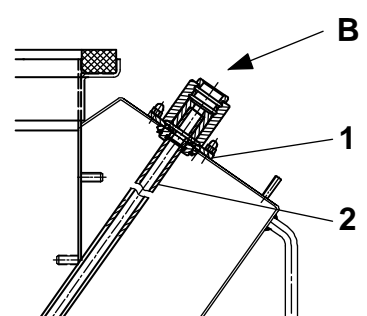
**6.7 Powder trolley (until 12/2006)**

Article No.	Designation	Number of injectors
3145991	Powder trolley	1 ... 4 *
3145985	Powder trolley	1 ... 8 *
3145992	Powder trolley	1 ... 12 *
3145983	Powder trolley	1 ... 16 *
3156863	Blanking plugs **	 <p>Suction system built into powder trolley</p>
3156833	Locknut **	
3145988	Suction system <b>PJ 18</b> (for collecting blow-out device)	
3145987	Suction system <b>PJ 24</b>	

\* A base plate **1** is built into the powder container for each of the four suction systems **2**. The suction system acts as the seating for the powder injector.

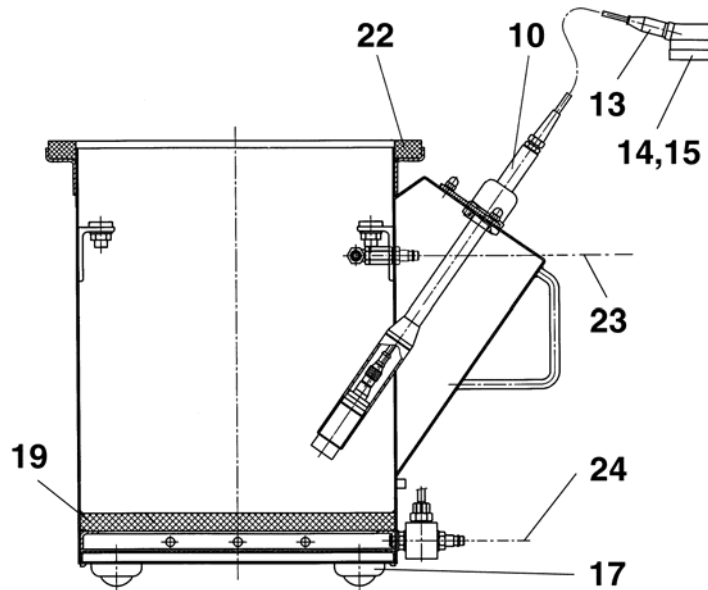
\*\* The base plate **1** has four holes for securing the suction system **2**. If less than four suction systems are fixed to the base plate, the free holes **B** **must** be closed off each with a blanking plug **3** and a locknut **4**.

### 6.8 Powder trolley (from 01/2007)

Article No.	Designation	Number of injectors
3310775	Powder trolley	1 ... 4 *
3310776	Powder trolley	1 ... 8 *
3310777	Powder trolley	1 ... 12 *
3310778	Powder trolley	1 ... 16 *
3053051	Blanking plugs **	 <p>Suction system built into powder trolley</p> 
3052097	Locknut **	
3310754	ICM/ICF Suction system	

\* A base plate **1** is built into the powder container for each of the four suction systems **2**. The suction system acts as the seating for the powder injector.

\*\* The base plate **1** has four holes for securing the suction system **2**. If less than four suction systems are fixed to the base plate, the free holes **B** must be closed off each with a blanking plug **3** and a locknut **4**.

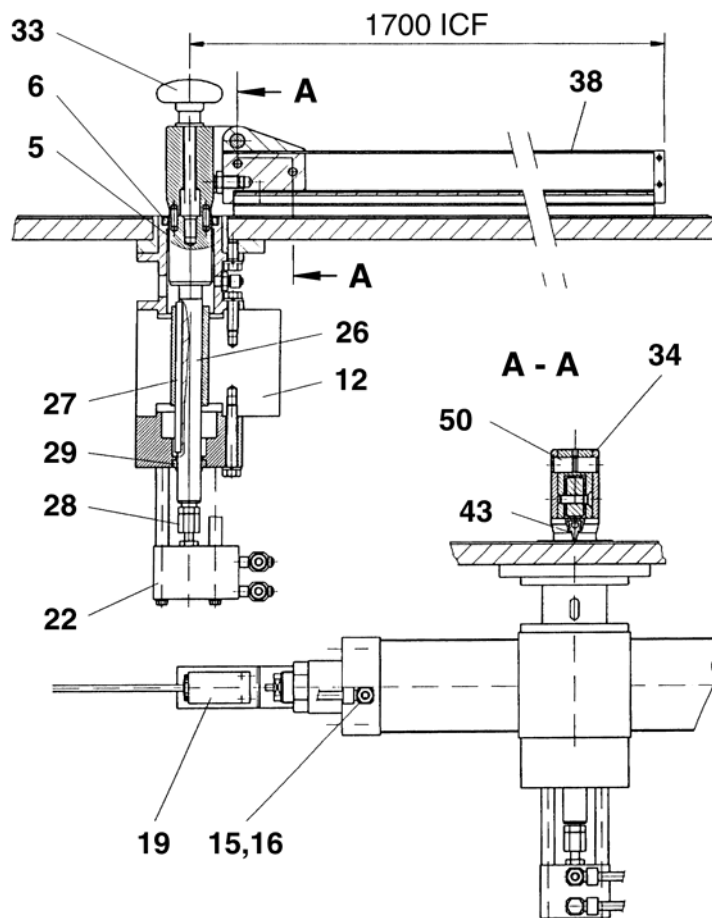


Item	Article No.	Designation
10	3304064	Proximity switch
13	3052608	Öflex number cable
14	3052376	Plug insert (6-pin)
15	3052375	Housing upper part
17	3055937	Ball roller head DW 40
19	3137188 *	Fluid base plate 1310 x 346 x 20
22	3053914	Foam rubber gasket (30 x 20)
23	3050061	Hose, diameter 8/6
24	3051701	PVC hose, diameter 10.5 x 8

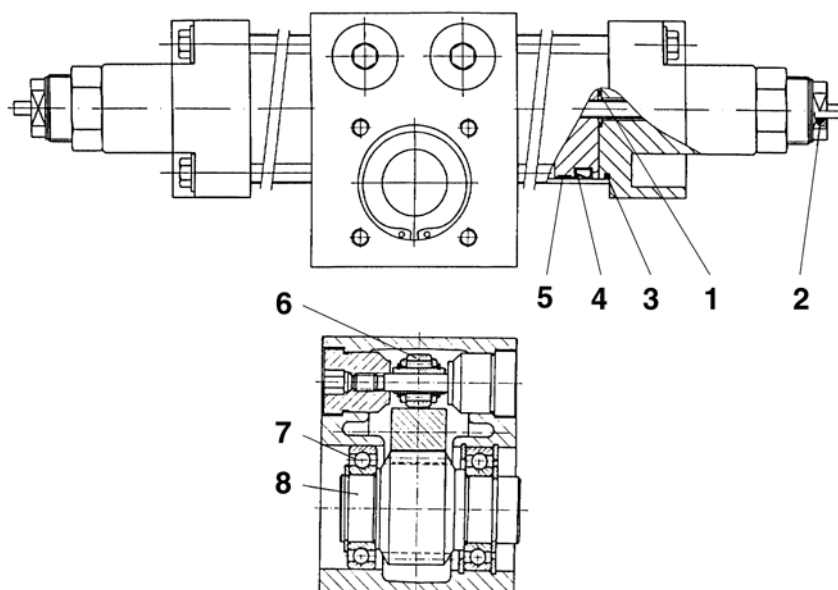
\* Wearing part

## 6.9 Special accessories

### 6.9.1 Wiper for booths with fixed floor



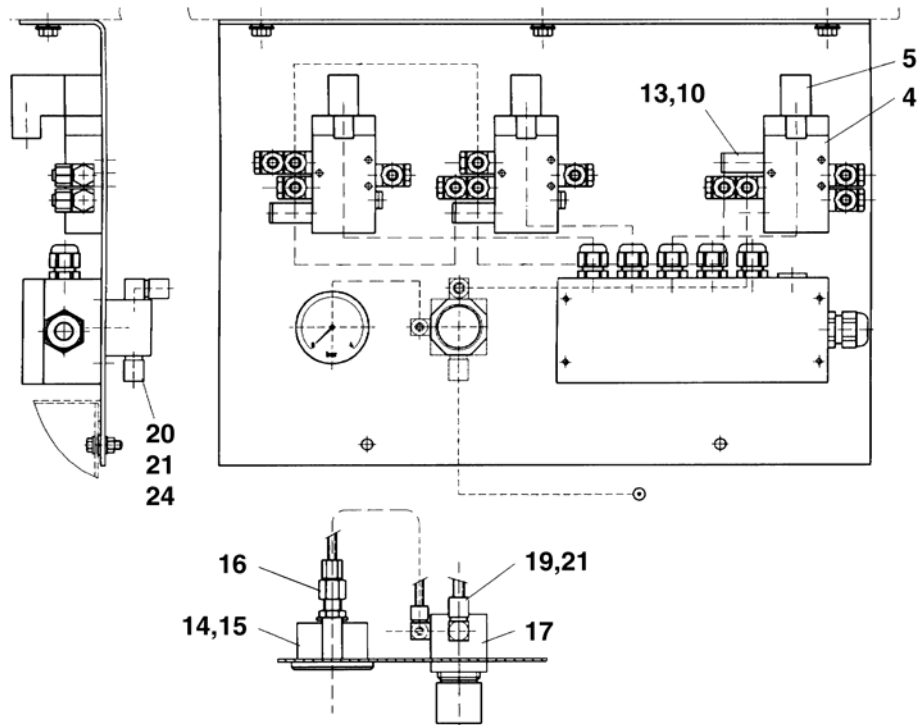
Item	Article No.	Designation
5	3059026	Glycodur A socket
6	3130615	Wiper-scraper seal
12	3059155	Rotary drive 153°
	3059546	Rotary drive 173°
	3059030	Rotary drive 206°
15	3051040	Sealing ring
16	3050149	Aluminum sealing ring
19	3059327	Limit switch
22	3061696	Short stroke cylinder (double-action)
26	3130616	Bearing shaft
27	3130210	Feather key
28	3062595	Flexo coupling
29	3062596	Stripper
33	3059039	Handle assembly
34	3130723	Seating head
38	3059041	Arm (1670 mm long)
43	3070629	Wiper lip
50	3059046	Bolt



12

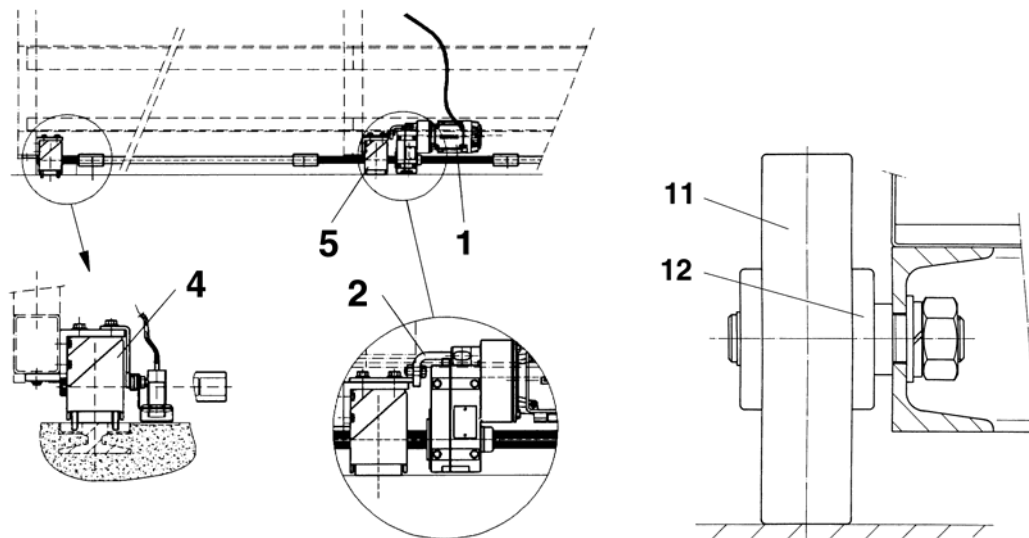
Item	Article No.	Designation
12/ -	3059615	Seal set, consisting of: Item 12/1 ... 12/5
12/1	--	O-ring
12/2	--	Lip ring (6 x 10 x 3 CI)
12/3	--	O-ring
12/4	--	Lip seal
12/5	--	Guide belt
12/6	3059620	Cam roll
12/7	3059621	Ball bearing
12/8	3059622	Bevel wheel

## 6.9.2 Wiper control unit



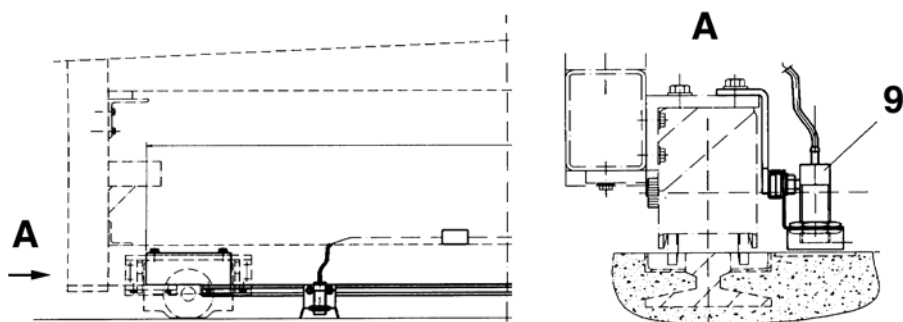
Item	Article No.	Designation
4	3059430	Solenoid valve (5/2-WV – Type 9982)
5	3058910	Valve connector (B 24 VAC/DC)
10	3056800	Silencer
13	3050173	Aluminum sealing ring
14	3055347	Pressure gauge (0 ... 58 psi / 0 ... 4 bar)
15	3050907	O-ring
16	3055136	Pressure gauge fitting
17	3060189	Pressure regulator (0 ... 58 psi / 0 ... 4 bar)
19	3906880	SR bracket fitting
20	3305069	Threaded connection straight
21	3050149	Aluminum sealing
24	3050061	Polyethylene hose (white)

**6.9.3 Drive and wheel set for mobile booths**



Item	Article No.	Designation
1	3135927	Brake motor with plug-on gear (0.37 kw)
2	3090445	Torque support
4	3059221	Wheel flange block assembly
5	3059130	Wheel flange block assembly
11	3061421	PEVOLON wheel
12	3061422	Bolt

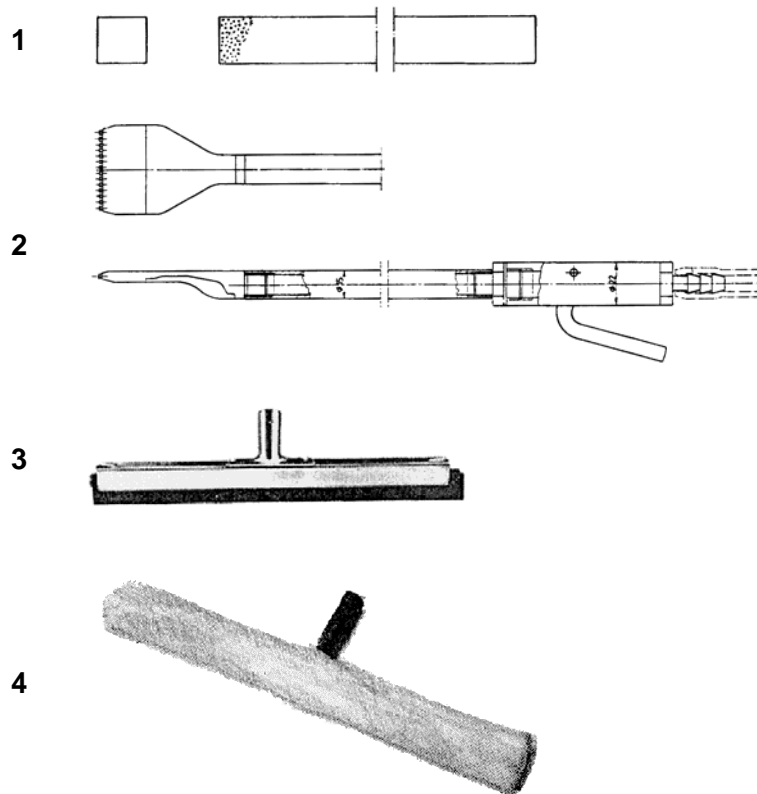
**6.9.4 Positioning equipment for mobile booths**



Item	Article No.	Designation
9	3026244	Inductive proximity switch



## 6.9.5 Cleaning accessories



Item	Article No.	Designation	Application
1	3107449	Sponge	For cleaning the belt in the booth
2	3107643	Jet blast unit	To clean the booth
3	3107454	Rubber scraper	To remove coarse powder residue from the booth walls
4	3107456	Fabric scraper	For fine, moist cleaning of the booth walls

## 7. Specification

### 7.1 Booth

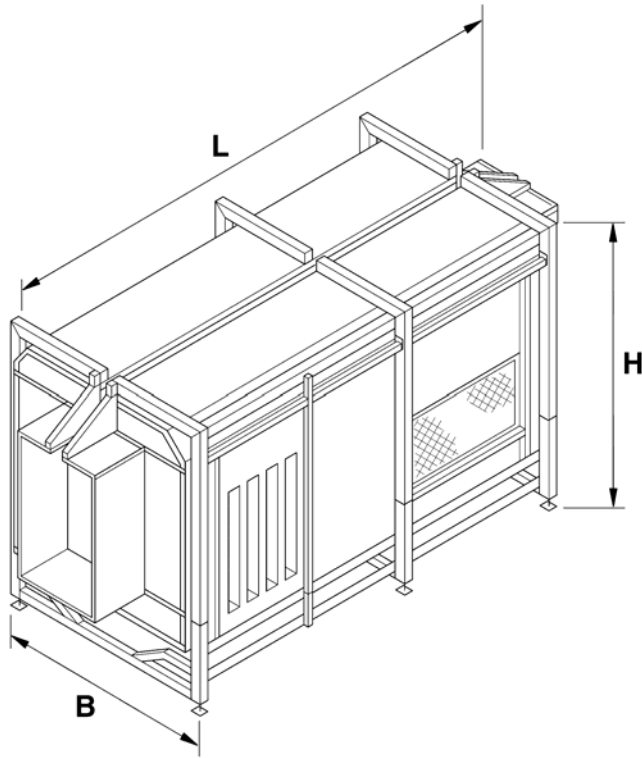
	8,000 m <sup>3</sup> /h Suction capacity	12,000 m <sup>3</sup> /h Suction capacity
Dimensions: Filter trolley + Fan box + Exhaust box (W x D x H)	1880 x 800 x 2650 *	1880 x 800 x 3150 *
Number of filters	10	10
Total filter surface	100 m <sup>2</sup>	160 m <sup>2</sup>
Filter capacity according to ZH1-498- paragraph 2	< 0.5 %	< 0.5 %
Compressed air container capacity (for cleaning)	17.5 l	37 l
Max. cleaning air pressure	87 psi (6 bar)	87 psi (6 bar)
Compressed air requirement for cleaning at a pulse time of 300 to 500 ms	14 Nm <sup>3</sup> /h	20 Nm <sup>3</sup> /h
Compressed air requirement for wiper	0.8 Nm <sup>3</sup> /h	0.8 Nm <sup>3</sup> /h
Total compressed air requirement (without powder discharge belt)	54 Nm <sup>3</sup> /h	60 Nm <sup>3</sup> /h
Belt suction compressed air requirement	60 Nm <sup>3</sup> /h at 6 bar	60 Nm <sup>3</sup> /h at 6 bar
Compressed air input pressure	116 psi (8 bar)	116 psi (8 bar)
Voltage (ventilator)	230 / 400 V	230 / 400 V
Frequency (ventilator)	50 Hz	50 Hz
Ventilator motor	2 x 2.2 kw	2 x 4.0 kw
Illumination	2 x 58 W per lamp **	2 x 58 W per lamp **
Cleaning	40 W	40 W
Control unit	-- kW ***	-- kW ***
Total connected load	-- kW ***	-- kW ***
Powder trolley contents	approx. 140 l	approx. 140 l
Number of injectors	max. 8	max. 12
Level control	Minimum probe	Minimum probe
Fluid base compressed air requirement	30 Nm <sup>3</sup> /h	30 Nm <sup>3</sup> /h
Screening unit compressed air requirement (turbine vibrator)	10 Nm <sup>3</sup> /h	10 Nm <sup>3</sup> /h
Differential pressure setting	1300 Pa	1540 Pa

\* with exhaust duct

\*\* Number of lamps depends on equipment (booth length)

\*\*\* See separate Operating manual for the control cabinets (cover of the power circuit plans).

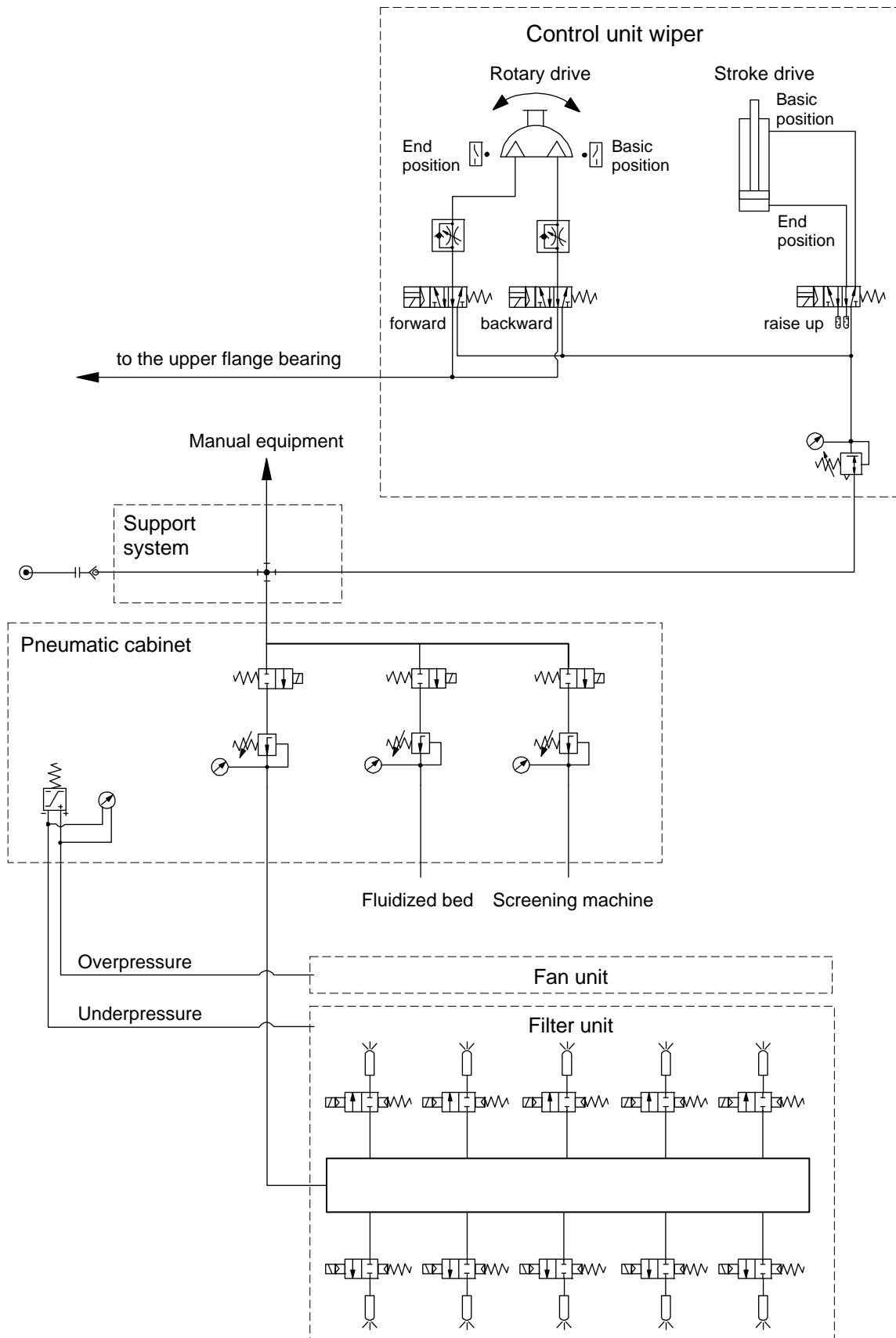
Steel booth	Type 1	Type 2	Type 3
Height (H) in mm	2810	3210	3610
Width (B) in mm	2200	2200	2200
Length (L) as required	Variable	Variable	Variable
Sluice	Variable	Variable	Variable



Illustration, Type 2

- H Booth height
- B Booth width
- L Booth length

**7.2 Pneumatic plan for the complete system**



## 8. Warranty

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### **What is covered by this warranty?**

Faulty or defective parts are replaced according to our general delivery conditions.

Within the applicable warrant period, Wagner will repair or replace, at our option, defective parts without charge if such parts are returned with transportation charges prepaid to the nearest authorized service center. If Wagner is unable to repair this product so as to conform to this Limited Warranty after a reasonable number of attempts, Wagner will provide, at our option, either a replacement for this product or a full refund of the purchase price of this product.

**These remedies are the sole and exclusive remedies available for breach of express and implied warranties.**

### **What is not covered by this warranty?**

This warranty does not cover any of the following damages or defects:

1. Damages or defects caused by use or installation of repair or replacement parts or accessories not manufactured by Wagner,
2. Damages or defects caused by repair performed by anyone other than a Wagner authorized service center, or
3. Damages or defects caused by or related to abrasion, corrosion, abuse, misuse, negligence, accident, normal wear, faulty installation or tampering in a manner which impairs normal operation.

### **Limitation of remedies:**

IN NO CASE SHALL WAGNER BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OR LOSS, INCLUDING TRANSPORTATION COSTS, WHETHER SUCH DAMAGES ARE BASED UPON A BREACH OF EXPRESS OR IMPLIED WARRANTIES, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL THEORY.

### **Disclaimer of implied warranties:**

THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

### **No ability to transfer:**

This warranty is extended to the original purchaser only and is not transferable.

### **Your rights under state law:**

Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights; you may also be entitled to other rights, which vary from state to state.



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