En

Operating instructions and spare parts list

# OptiFlex V

# Powder feed equipment

**Documentation OptiFlex V Powder feed equipment**



**Printed in Switzerland**

ITW Gema AG
Mövenstrasse 17
9015 St. Gallen
Switzerland

Phone: +41-71-313 83 00
Fax.: +41-71-313 83 83

E-Mail: info@itwgema.ch
Homepage: www.itwgema.ch

# Table of contents

# General safety regulations

This chapter sets out the fundamental safety regulations that must be followed by the user and third parties using the OptiFlex V Powder feed equipment.

These safety regulations must be read and understood before the OptiFlex V Powder feed equipment is used.

## Safety symbols (pictograms)

The following warnings with their meanings can be found in the ITW 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 OptiFlex V Powder feed equipment is built to the latest specification and conforms to the recognized technical safety regulations. It is designed for the normal application of powder coating.
2. Any other use is considered as non-conform. The manufacturer is not responsible for damage resulting from improper use of this equipment; the end-user alone is responsible. If the OptiFlex V Powder feed equipment is to be used for other purposes or other substances outside of our guidelines then ITW Gema AG should be consulted.
3. Observance of the operating, service and maintenance instructions specified by the manufacturer is also part of conformity of

use. The OptiFlex V Powder feed equipment 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 OptiFlex V Powder feed equipment has been set up and wired according to the guidelines for machinery (98/37 EG). EN 60204-1 (machine safety) must also be observed.
5. Unauthorized modifications to OptiFlex V Powder feed equipment 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 must be observed.

| Explosion protection | Protection type | Temperature class |
|---|---|---|
| CE Ex II (2) D | IP54 | T6 (zone 21)<br>T4 (zone 22) |

# Technical safety regulations for stationary electrostatic powder spraying equipment

## General information

The powder spraying equipment from ITW Gema is designed with safety in mind and is built according to the latest technological specifications. This equipment can be dangerous if it is not used for its specified purpose. Consequently it should be noted that there exists a danger to life and limb of the user or third party, a danger of damage to the equipment and other machinery belonging to the user and a hazard to the efficient operation of the equipment.

1. The powder spraying equipment should only be started up and used once the operating instructions have been carefully studied. Improper use of the controlling device can lead to accidents, malfunction or damage to the control itself.
2. Before every start-up check the equipment for operational safety (regular servicing is essential)!
3. Safety regulations BGI 764 and VDE regulations DIN VDE 0147, Part 1, must be observed for safe operation.
4. Safety precautions specified by local legislation must be observed.
5. The plug must be disconnected before the machine is opened for repair.
6. The plug and socket connection between the powder spraying equipment and the mains network should only be taken out when the power is switched off.

7. The connecting cable between the controlling device and the spray gun must be set up so that it cannot be damaged during operation. Safety precautions specified by local legislation must be observed!
8. Only original ITW-Gema spare parts should be used, because the explosion protection will also be preserved that way. Damage caused by other parts is not covered by guarantee.
9. If ITW-Gema powder spraying equipment is used in conjunction with machinery from other manufacturers then their safety regulations must also be taken into account.
10. Before starting work familiarize yourself with all installations and operating elements, as well as with their functions! Familiarization during operation is too late!
11. Caution must be exercised when working with a powder/air mixture! A powder/air mixture in the right concentration is flammable! Smoking is forbidden in the entire plant area!
12. As a general rule for all powder spraying installations, persons with pacemakers should never enter high voltage areas or areas with electromagnetic fields. Persons with pacemakers should not enter areas with powder spraying installations!

**WARNING!**
**We emphasize that the customer himself is responsible for the safe operation of equipment. ITW-Gema is in no way responsible for any resulting damages!**

## Safety conscious working

Each person responsible for the assembly, start-up, operation, service and repair of powder spraying equipment must have read and understood the operating instructions and the “Safety regulations”-chapter. The operator must ensure that the user has had the appropriate training for powder spraying equipment and is aware of the possible sources of danger.

The control devices for the spray guns must only be set up and used in zone 22. Only the spray gun should be used in zone 21.

The powder spraying equipment should only be used by trained and authorized personnel. This applies to modifications to the electrical equipment, which should only be carried out by a specialist.

The operating instructions and the necessary closing down procedures must be followed before any work is carried out concerning the set-up, start-up, operation, modification, operating conditions, mode of operation, servicing, inspection or repairs.

The powder spray equipment can be turned off by using the main switch or failing that, the emergency shut-down. Individual components can be turned off during operation by using the appropriate switches.

## Individual safety regulations for the operating firm and/or operating personnel

1. Any operating method which will negatively influence the technical safety of the powder spraying equipment is to be avoided.

2. The operator should care about no non-authorized personnel works on the powder spraying equipment (e.g. this also includes using the equipment for non-conform work).
3. For dangerous materials, the employer has to provide an operating instructions manual for specifying the dangers arising for humans and environment by handling dangerous materials, as well as the necessary preventive measures and behavior rules. The operating instructions manual has to be written in an understandable form and in the language of the persons employed, and has to be announced in a suitable place in the working area.
4. The operator is under obligation to check the powder spraying equipment at least once every shift for signs of external damage, defects or changes (including the operating characteristics) which could influence safety and to report them immediately.
5. The operator is obliged to check that the powder spraying equipment is only operated when in satisfactory condition.
6. As far as it is necessary, the operating firm must ensure that the operating personnel wear protective clothing (e.g. facemasks).
7. The operating firm must guarantee cleanliness and an overview of the workplace with suitable instructions and checks in and around the powder spraying equipment.
8. No safety devices should be dismantled or put out of operation. If the dismantling of a safety device for set-up, repair or servicing is necessary, reassembly of the safety devices must take place immediately after the maintenance or repair work is finished. The powder spraying device must be turned off while servicing is carried out. The operator must train and commit the responsible personnel to this.
9. Activities such as checking powder fluidization or checking the high-voltage spray gun etc. must be carried out with the powder spraying equipment switched on.

## Notes on special types of hazard

### *Power*

It is necessary to refer once more to the danger of life from high-voltage current if the shut-down procedures are not observed. High voltage equipment must not be opened - the plug must first be taken out - otherwise there is danger of electric shock.

### *Powder*

Powder/air mixtures can be ignited by sparks. There must be sufficient ventilation in the powder coating booth. Powder lying on the floor around the powder spraying device is a potentially dangerous source of slipping.

### *Static charges*

Static charges can have the following consequences: Charges to people, electric shocks, sparking. Charging of objects must be avoided - see "Earthing".

### *Grounding/Earthing*

All electricity conducting parts and machinery found in the workplace (according to DIN VDE 0745, part 102) must be earthed 1.5 meters either

side and 2.5 meters around each booth opening. The earthing resistance must amount to maximally 1 MOhm. The resistance must be tested on a regular basis. The condition of the machinery surroundings as well as the suspension gear must ensure that the machinery remains earthed. If the earthing of the machinery includes the suspension arrangements, then these must constantly be kept clean in order to guarantee the necessary conductivity. The appropriate measuring devices must be kept ready in the workplace in order to check the earthing.

### *Compressed air*

When there are longer pauses or stand-still times between working, the powder spraying equipment should be drained of compressed air. There is a danger of injury when pneumatic hoses are damaged and from the uncontrolled release and improper use of compressed air.

### *Crushing and cutting*

During operation, moving parts may automatically start to move in the operating area. It must be ensured that only instructed and trained personnel go near these parts. The operator should ensure that barriers comply with the local security regulations.

### *Access under exceptional circumstances*

The operating firm must ensure that local conditions are met when repairs are made to the electronic parts or when the equipment is restarted so that there are additional measures such as barriers to prevent unauthorized access.

### *Prohibition of unauthorized conversions and modifications to machines*

All unauthorized conversions and modifications to electrostatic spraying equipment are forbidden for safety reasons.

The powder spraying equipment should not be used if damaged, the faulty part must be immediately replaced or repaired. Only original ITW-Gema replacement parts should be used. Damage caused by other parts is not covered by guarantee.

Repairs must only be carried out by specialists or in ITW-Gema workshops. Unauthorized conversions and modifications may lead to injury or damage to machinery. The ITW Gema AG guarantee would no longer be valid.

## Safety requirements for electrostatic powder coating

1. This equipment is dangerous if the instructions in this operating manual are not followed.
2. All electrostatic conductive parts, in particular the machinery within 5 meters of the coating equipment, must be earthed.
3. The floor of the coating area must conduct electricity (normal concrete is generally conductive).
4. The operating personnel must wear electricity conducting footwear (e.g. leather soles).
5. The operating personnel should hold the gun with bare hands. If gloves are worn, these must also conduct electricity.

6. The supplied earthing cable (green/yellow) must be connected to the earthing screw of the electrostatic powder spraying hand appliance. The earthing cable must have a good metallic connection with the coating booth, the recovery unit and the conveyor chain and with the suspension arrangement of the objects.
7. The electricity and powder supply to the hand guns must be set up so that they are fully protected against heat and chemical damage.
8. The powder coating device may only be switched on once the booth has been started up. If the booth cuts out then the powder coating device must be switched off.
9. The earthing of all electricity conducting devices (e.g. hooks, conveyor chains) must be checked on a weekly basis. The earthing resistance must amount to maximally 1 MOhm.
10. The control device must be switched off if the hand gun is cleaned or the nozzle is changed.
11. When working with cleaning agents there may be a risk of hazardous fumes. The manufacturers instructions must be observed when using such cleaning agents.
12. The manufacturers instructions and the applicable environmental requirements must be observed when disposing of powder lacquer and cleaning agents.
13. If any part of the spray gun is damaged (broken parts, tears) or missing then it should not be used.
14. For your own safety, only use accessories and attachments listed in the operating instructions. The use of other parts can lead to risk of injury. Only original ITW-Gema replacement parts should be used.
15. Repairs must only be carried out by specialists and under no circumstances should they be carried out in the operating area. The former protection must not be reduced.
16. Conditions leading to dangerous levels of dust concentration in the powder spraying booths or in the powder spraying areas must be avoided. There must be sufficient technical ventilation available, to prevent a dust concentration of more than 50% of the lower explosion limit (UEG) (UEG = max. permissible powder/air concentration). If the UEG is not known then a value of 10 g/m³ should be used.

# A summary of the rules and regulations

The following is a list of relevant rules and regulations which are to be observed:

## *Guidelines and regulations, German professional association*

| | |
|---|---|
| BGV A1 | General regulations |
| BGV A2 | Electrical equipment and material |
| BGI 764 | Electrostatic coating |
| BGR 132 | Guidelines for the avoidance of the dangers of ignition due to electrostatic charging (Guideline “Static Electricity”) |
| VDMA 24371 | Guidelines for electrostatic coating with synthetic powder[1)]<br>- Part 1 General requirements<br>- Part 2 Examples of use |

## *EN European standards*

| | |
|---|---|
| RL94/9/EC | The approximation of the laws of the Member States relating to apparatus and safety systems for their intended use in potentially explosive atmospheres |
| EN 292-1<br>EN 292-2 | Machine safety [2)] |
| EN 50 014 to EN 50 020, identical: DIN VDE 0170/0171 | Electrical equipment for locations where there is danger of explosion [3)] |
| EN 50 050 | Electrical apparatus for potentially explosive atmospheres - Electrostatic hand-held spraying equipment [2)] |
| EN 50 053, part 2 | Requirements for the selection, installation and use of electrostatic spraying equipment for flammable materials - Hand-held electrostatic powder spray guns [2)] |
| EN 50 177 | Stationary electrostatic spraying equipment for flammable coating powder [2)] |
| PR EN 12981 | Coating plants - Spray booths for application of organic powder coating material - Safety requirements |
| EN 60 529, identical: DIN 40050 | IP-Type protection: contact, foreign bodies and water protection for electrical equipment [2)] |
| EN 60 204 identical: DIN VDE 0113 | VDE regulations for the setting up of high-voltage electrical machine tools and processing machines with mains voltages up to 1000 V [3)] |

## *VDE (Association of German Engineers) Regulations*

| | |
|---|---|
| DIN VDE 0100 | Regulations for setting-up high voltage equipment with mains voltages up to 1000V [4)] |
| DIN VDE 0105 | VDE regulations for the operation of high voltage equipment [4)] |
| part 1 | General regulations |
| part 4 | Supplementary definitions for stationary electrical spraying equipment |
| DIN VDE 0147 part 1 | Setting up stationary electrostatic spraying equipment [4)] |
| DIN VDE 0165 | Setting up electrical equipment in locations in areas with danger of explosion [4)] |

*****Sources:

[1)] Carl Heymanns Verlag KG, Luxemburger Strasse 449, 5000 Köln 41, or from the appropriate employers association

[2)] Beuth Verlag GmbH, Burgrafenstrasse 4, 1000 Berlin 30

[3)] General secretariat, Rue Bréderode 2, B-1000 Bruxelles, or the appropriate national committee

[4)] VDE Verlag GmbH, Bismarckstrasse 33, 1000 Berlin 12

# Product specific security measures

- 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

# About this manual

## General information

This operating manual contains all important information which you require for the working with the OptiFlex V Powder feed equipment. 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 - reciprocators, booths, powder gun controls, powder guns etc. - should be referenced to their corresponding documents.

# Function description

## Field of application

The OptiFlex V Powder feed equipment is ideally suited for the powder supply for one to two manual or automatic powder guns with organic powder - directly from the powder container. The powder will be vibrated in its container and directly sucked up by the fluidizing/suction unit.

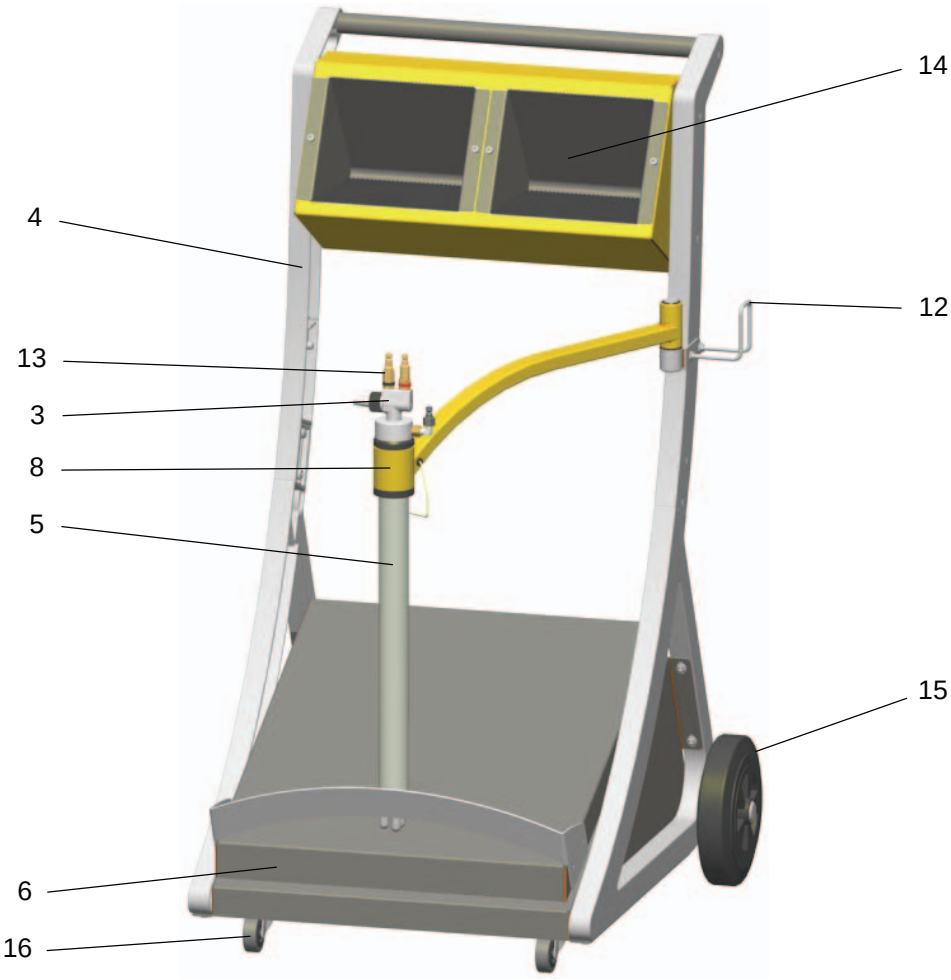
Any other use is considered as non-conform. The manufacturer is not responsible for any damage resulting from this; the risk for this is assumed by the user alone!

## Typical characteristics

- Processing the powder directly from the original powder manufacturer's container
- Total emptying of the powder container due to inclined vibrating base
- Quick and simple color change
- Supplied ready for use
- Available with one or two fluidizing/suction units (extensible)

# OptiFlex V Powder feed equipment

## Structure




*OptiFlex V Powder feed equipment - structure*

| | | | |
|---|---|---|---|
| 3 | OptiFlow injector | 12 | Hose holder |
| 4 | Frame with hand rail | 13 | Hose connections |
| 5 | Fluidizing/suction unit | 14 | Shelf |
| 6 | Vibrating base | 15 | Rubber wheel |
| 8 | Swivel arm with guide sleeve | 16 | Swivel wheel |

## OptiFlow injector

All information about the OptiFlow injector you will find in the corresponding, enclosed manual!

# Scope of delivery

## OptiFlex 1V

- A mobile trolley with a gun/hose support
- A vibrating base and a fluidizing/suction unit
- A plug-in OptiFlow Injector
- Pneumatic hoses for conveying air (red), supplementary air (black) and fluidizing air (black)
- Vibrator extension cable

## Additional supply for OptiFlex 2V

- A second fluidizing/suction unit with plug-in OptiFlow injector, a double arm, a pneumatic kit and screw joints
- Pneumatic hoses for conveying air (red), supplementary air (black)

# Technical Data

## OptiFlex V Powder feed equipment

### Electrical Data

| OptiFlex V | 1V (2V) |
|---|---|
| Nominal input voltage | 230-240 VAC<br>(110-120 VAC) |
| Frequency | 50/60 Hz |
| Input value | 100 VA |
| Protection type | IP54 |
| Temperature range | 0 - 40°C |
| Approvals | |

### Pneumatic Data

| OptiFlex V | 1V (2V) |
|---|---|
| Compressed air main connection | G1/4" internal thread |
| Max. input pressure | 10 bar |
| Min. input pressure | 6 bar |
| Max. water vapor content of compressed air | 1,3 g/m³ |
| Max. oil vapor content of compressed air | 0,1 mg/m³ |
| Max. compressed air consumption | 11 (22) m³/h |

### Dimensions

| OptiFlex V | 1V (2V) |
|---|---|
| Width | 690 mm |
| Depth | 800 mm |
| Height | 1135 mm |
| Weight (without powder) | 43 (45) kg |

# Start-up and operation

## Connecting guide

1. Connect the compressed air supply hose

**Note:**
**The compressed air must be free from oil and water!**

2. Connect the black hose for fluidizing air to the control unit
3. Connect the grounding cable to the trolley with the screw, and the 5 m long grounding cable with the clamping clip to the booth or the conveyor. Check ground connections with Ohm meter and ensure 1 MOhm or less
4. Attach the injector, connect the powder hose to the injector and to the powder gun
5. Connect the red hose for conveying air to the corresponding output on the control unit and to the injector
6. Connect the black hose for supplementary air to the corresponding output on the control unit and to the injector (this hose is electrically conducting)
7. Connect the vibrator cable (see connecting instruction supplied)

## Preparation for start-up

### Preparing the powder container

1. Swivel the fluidizing/suction unit to the side
2. Place the open powder container on the vibrating table
3. Place the fluidizing/suction unit onto the powder

### Switching on the booth

The coating booth is switched on according to the corresponding user manual.

# Start-up

## Switch on the control unit

1. Press the power switch **ON**.
   The displays illuminate and the control unit is ready for operation

**Note:**
**For further start-up procedure for the OptiFlex V powder feed equipment see the corresponding control unit operating instructions!**

# Color change

## General information

If a color change takes place, the individual components of the manual coating equipment must be cleaned carefully. Thereby, all powder particles of the former color must be removed!

**Procedure:**

1. Clean the fluidizing/suction unit
2. Clean the powder hose:
   - Strip the powder hose from the hose connection on the injector
   - Point the gun into the booth
   - Blow through the hose manually with a compressed air gun
   - Fit the powder hose again to the hose connection on the injector
3. Clean the injector (see therefore the user manual of the OptiFlow injector)
4. Prepare the manual coating equipment with new powder for start-up

# Maintenance and cleaning

**Note:**
**A regular and conscientious maintenance increases the operating life of the unit and ensures a longer constant coating quality!**

## Daily maintenance

1. Clean the injector (see therefore the user manual of the OptiFlow injector)
2. Clean the powder hose, see therefore in chapter "Color change"

## Weekly maintenance

1. Clean fluidizing/suction unit, injector and powder gun. Just place the fluidizing/suction unit in the powder shortly before restarting operation
2. Check the control unit grounding connections to the coating booth, the suspension devices of the work pieces, or the conveyor chain

## If in disuse for several days

1. Disconnect the mains plug
2. Clean the coating equipment
3. Turn off the compressed air main supply

### Powder hose rinsing

If lengthy downtimes take place, the powder hose must be cleaned.

**Procedure:**

1. Strip the powder hose from the hose connection on the injector
2. Point the gun into the booth
3. Blow through the hose manually with a compressed air gun
4. Fit the powder hose again to the hose connection on the injector

# Cleaning

## Cleaning the fluidizing/suction unit

1. Remove the injector
2. Remove the fluidizing/suction unit
3. Clean the fluidizing/suction unit with compressed air. Also blow off the suction tube with compressed air
4. Clean the injector (see therefore the injector user manual)
5. Reassemble the individual parts

# Troubleshooting guide

## General information

| Fault | Causes | Fault elimination |
|---|---|---|
| The powder is not fluidized | Compressed air not present | Connect the equipment to the compressed air |
| | Fluidizing air is set too low on the control unit | Set the fluidizing air correctly |
| The powder is not conveyed | Compressed air not present | Connect the equipment to the compressed air |
| | Injector, nozzle on injector, powder hose or powder gun are clogged | Clean corresponding part |
| | Nozzle in the injector is clogged | Replace |
| | Nozzle is not inserted | Insert the nozzle |
| | Fluidizing not running | (see above) |
| | No conveying air | Check the conveying air supply |

# Spare parts list

## Ordering spare parts

When ordering spare parts for powder coating equipment, please indicate the following specifications:

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

**Example:**

- **Type** OptiFlex V Powder feed equipment
  **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 wear 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)

**WARNING!**
**Only original ITW-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 ITW Gema guarantee conditions!**

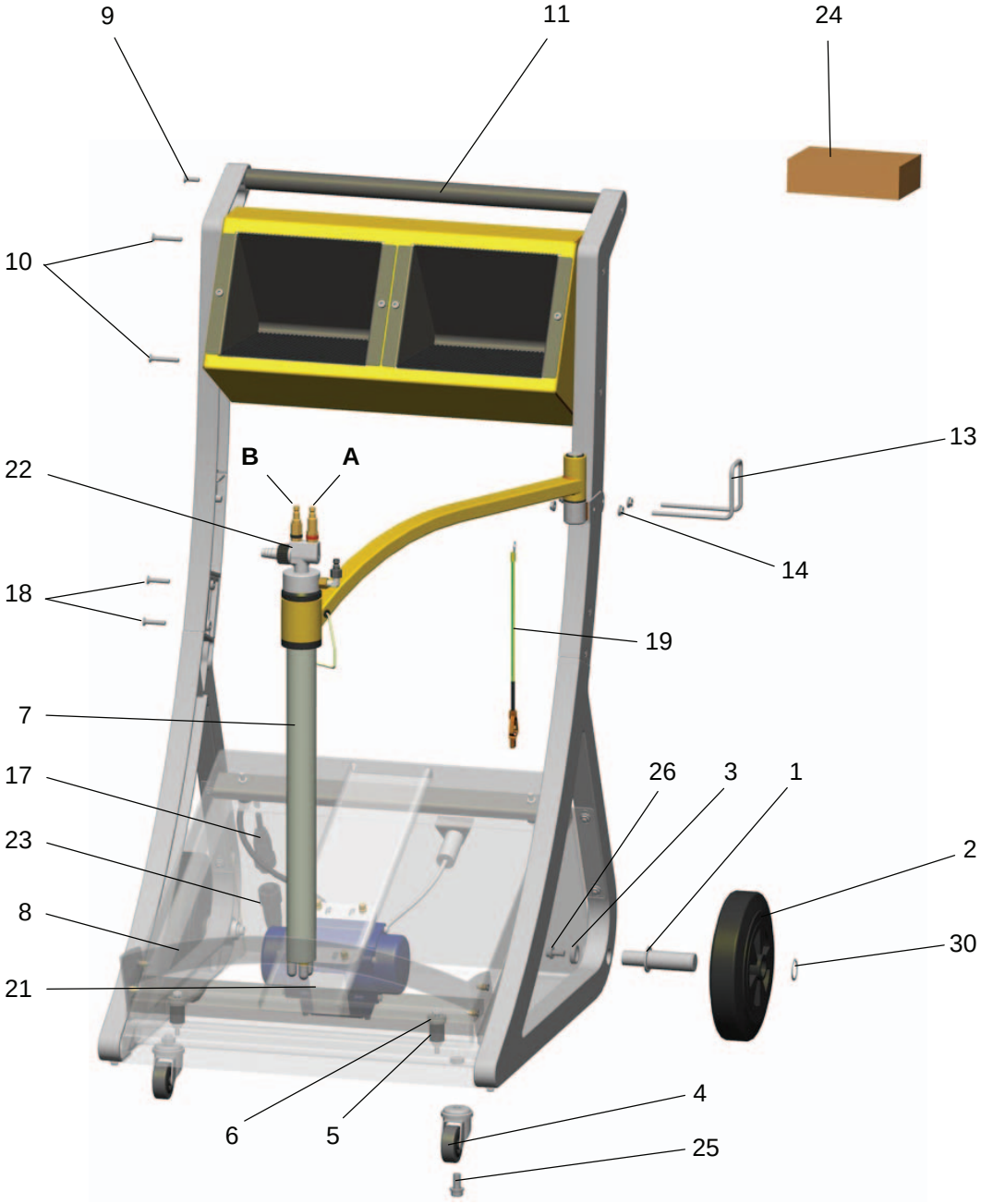
# OptiFlex V Powder feed equipment - spare parts list

| | | |
|---|---|---|
| 1 | Wheel shaft | 1000 453 |
| 2 | Rubber wheel - Ø 200 mm | 260 592 |
| 3 | Lock washer - Ø 26 mm | 1000 944 |
| 4 | Swivel wheel - Ø 50 mm | 260 606 |
| 5 | Spacing ring | 375 624 |
| 6 | Rubber damper - Ø 20x25 mm, M6/2a 43sh | 246 000 |
| 7 | Fluidizing/suction unit (see corresponding spare parts list) | |
| 8 | Stop plate | 1000 513 |
| 9 | Countersunk Allen screw - M6x40 mm | 1002 953 |
| 10 | Countersunk Allen screw - M6x20 mm | 1002 992 |
| 11 | Handle bar | 1002 623 |
| 13 | Hose holder | 1000 699 |
| 14 | Hexagon shakeproof nut - M6 | 244 430 |
| | Cable connection fitting for vibrator cable - M16/1/6-10.5 mm, brass (not shown) | 265 780 |
| 17 | Cable plug - 4 pins, male | 206 466 |
| 18 | Countersunk Allen screw - M6x30 mm | 1002 952 |
| 19 | Grounding cable - complete | 301 140 |
| 21 | Vibrator motor - 220-240 VAC, 50 Hz | 1001 748 |
| | Vibrator motor - 120 VAC | 389 382 |
| 22 | IG02-V Injector - complete (see corresponding user manual) | |
| 23 | Vibrator extension cable - L=12 m | 1002 773 |
| 24 | Spare parts set - 1V, consisting of: | 1003 673 |
| | Insert sleeve PTFE | 377 724 |
| | Injector plug gauge | 393 380 |
| | Fluidizing pad - 1/8"a | 237 264 |
| | O-ring - Ø 16x2 mm | 231 517 |
| | Cable tie - L=100x2.5 mm | 200 719 |
| 25 | Ribbed cylinder screw - M10x20 mm | 260 584 |
| 26 | Hexagon ribbed cylinder screw - M8x16 mm | 261 793 |
| 30 | Snap ring - A-25 | 237 094 |
| **A** | Conveying air pneumatic connection (consisting of pos. 31, 33 and 34) | |
| **B** | Supplementary air pneumatic connection (consisting of pos. 32, 33 and 35) | |
| 31 | Quick release connection - NW5, Ø 8 mm, red | 261 645 |
| 32 | Quick release connection - NW5, Ø 8 mm, black | 261 637 |
| 33 | Nut with kink protection - M12x1 mm, Ø 8 mm | 201 316 |

# OptiFlex V Powder feed equipment - spare parts

| | | |
|---|---|---|
| 34 | Plastic hose - Ø 8/6 mm, red | 103 500* |
| 35 | Plastic hose - Ø 8/6 mm, black | 103 756* |

* Please indicate length



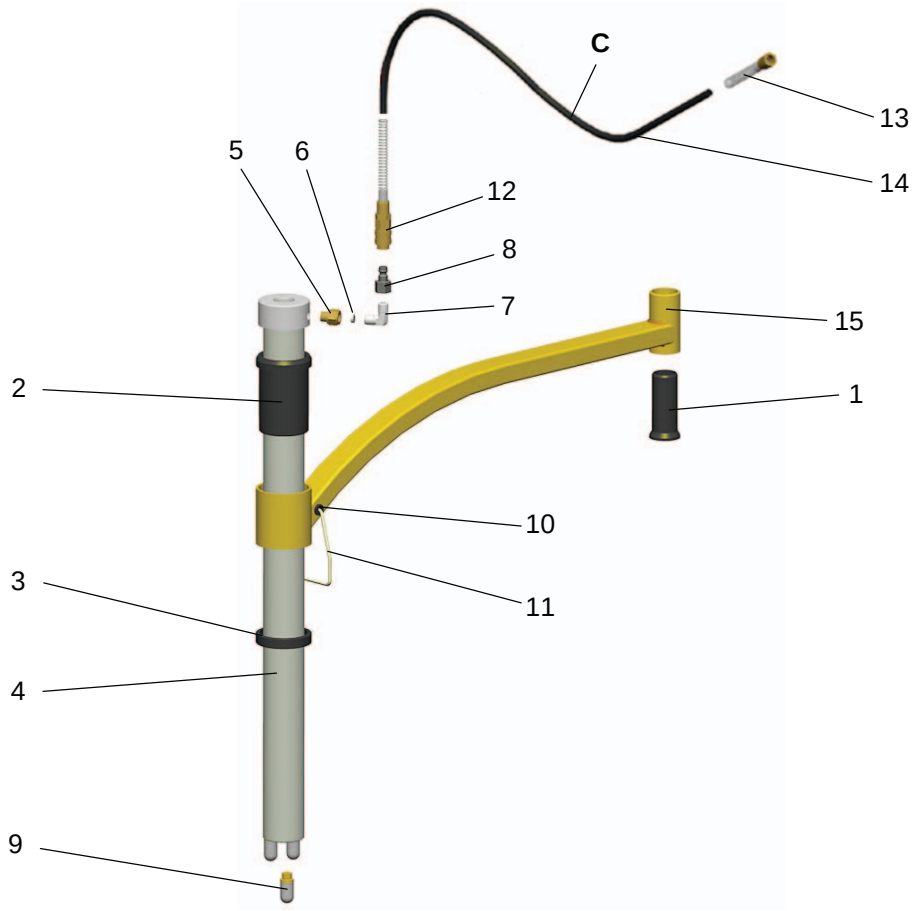

*OptiFlex V Powder feed equipment - spare parts*

# OptiFlex V Powder feed equipment - fluidizing/suction unit

| | | |
|---|---|---|
| 1 | Bearing bush | 1002 046 |
| 2 | Guide sleeve | 1002 052 |
| 3 | Locknut - M48x1.5 mm, plastic | 1002 051 |
| 4 | Fluidizing/suction unit - Ø 40x534 mm, complete (incl. pos. 5-9) | 362 425 |
| 5 | Adapter nipple - 1/8"i-1/8"a | 200 930 |
| 6 | Bezel - Ø 0.3 mm | 338 303 |
| 7 | Elbow - 1/8"a-1/8"a | 235 733 |
| 8 | Plug - NW5-1/8"i | 200 859 |
| 9 | Fluidizing pad - 1/8"a | 237 264 |
| 10 | Cable sleeve - Ø 4/8/1.5 mm | 265 276 |
| 11 | Retaining bracket | 1002 054 |
| **C** | Fluidizing air pneumatic connection (consisting of pos. 12, 13 and 14) | |
| 12 | Quick release connection - NW5, Ø 6 mm | 200 840 |
| 13 | Nut with kink protection - M10x1 mm, Ø 6 mm | 201 308 |
| 14 | Plastic hose - Ø 6/4 mm, black | 1001 973***** |
| 15 | Swivel arm (incl. pos. 10) | 1002 045 |

***** Please indicate length

# OptiFlex V Powder feed equipment - fluidizing/suction unit




*OptiFlex V - fluidizing/suction unit*

# OptiFlex V Powder feed equipment - 1V → 2V

| | | |
|---|---|---|
| | Double arm - complete (consisting of pos. 1, 2, 3, 10, 11) | 1002 930 |
| 1 | Double arm | 1002 047 |
| 2 | Guide sleeve | 1002 052 |
| 3 | Locknut - M48x1.5 mm, plastic | 1002 051 |
| 4 | Fluidizing/suction unit (see corresponding spare parts list) | |
| 10 | Cable sleeve - Ø 4/8/1.5 mm | 265 276 |
| 11 | Retaining bracket | 1002 054 |
| **A, B, C** | Pneumatic connections (see corresponding spare parts lists) | |