OptiSelect

Manual powder gun
(for OptiSpray DPP01
Dense phase pump)

Translation of the original operating instructions
Documentation OptiSelect Manual powder gun for DPP01

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ITW Gema GmbH
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
- Safety symbols (pictograms) .................................................. 3
- Conformity of use .................................................................................. 3
- Product specific security measures .................................................. 4
  - OptiSelect Manual powder gun for DPP01 ........................................... 4

## About this manual
- General information ........................................................................... 5

## Function description
- Field of application .................................................................................. 7
- Typical characteristics .................................................................................. 7
- Scope of delivery .......................................................................................... 8
  - OptiSelect Manual powder gun for DPP01 ........................................... 8
  - OptiSelect Manual powder gun for DPP01 ........................................... 8
    - Structure .................................................................................................. 8
    - High voltage generation ........................................................................ 9
    - Circuit ........................................................................................................ 9
    - Powder flow and rinsing air ..................................................................... 9
    - Remote control by gun ........................................................................... 9
- Spray nozzles ............................................................................................... 10
  - Standard set .............................................................................................. 10
  - Nozzle 150 mm .......................................................................................... 10
  - Nozzle 300 mm .......................................................................................... 10
  - Flat jet nozzle with vented central electrode ......................................... 11
  - Round jet nozzle with vented deflector and vented central electrode ....... 11
- SuperCorona set .......................................................................................... 12
  - Field of application ................................................................................... 12
  - Scope of delivery ..................................................................................... 12
  - SuperCorona assembly .......................................................................... 13

## Technical data
- OptiSelect Manual powder gun for DPP01 .................................................. 15
  - Electrical data .......................................................................................... 15

## Start-up and operation
- Connecting guide ...................................................................................... 17
  - Connection with manual gun .................................................................. 18
  - Connection with automatic gun ............................................................... 18
- Start-up ......................................................................................................... 19

## Maintenance and cleaning
- Daily maintenance ..................................................................................... 21
- Weekly maintenance .................................................................................. 21
- Cleaning ...................................................................................................... 21
Cleaning the OptiSelect Manual powder gun .................................................. 21
Cleaning the spray nozzles ........................................................................... 22
Dismantle the gun .......................................................................................... 23
Dismantle the gun .................................................................................... 23
Replacing the powder gun cable .............................................................. 25
Assembling the gun ................................................................................... 26
Replacing parts ....................................................................................... 26

Troubleshooting ........................................................................................... 27
General information ................................................................................... 27

Spare parts list ............................................................................................. 29
Ordering spare parts ................................................................................... 29
OptiSelect Manual powder gun for DPP01 - spare parts list....................... 30
Remarks ................................................................................................... 30
OptiSelect Manual powder gun for DPP01 - spare parts ......................... 31
OptiSelect Manual powder gun for DPP01 - spare parts list (cont.) .......... 32
OptiSelect Manual powder gun for DPP01 - nozzle combinations .......... 33
OptiSelect Manual powder gun for DPP01 - SuperCorona ....................... 34
OptiSelect Manual powder gun for DPP01 - diffuser ................................. 35
OptiSelect Manual powder gun for DPP01 - accessory ............................. 35
OptiSelect flat jet nozzles - overview ....................................................... 36
OptiSelect round jet nozzles - overview .................................................. 37
OptiSelect gun extensions and SuperCorona .................................... 38
Powder hoses - overview ....................................................................... 39
Powder hose connectors - overview ....................................................... 40
Miscellaneous parts ............................................................................... 41
General safety regulations

This chapter specifies the fundamental safety regulations that must be followed by the user and third parties using the OptiSelect Manual powder gun for DPP01.

These safety regulations must be read and understood before the OptiSelect Manual powder gun for DPP01 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 OptiSelect Manual powder gun for DPP01 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 OptiSelect Manual powder gun for DPP01 is to be used for other purposes or other substances outside of our guidelines then ITW Gema 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 OptiSelect Manual powder gun for DPP01 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 OptiSelect Manual powder gun for DPP01 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 the OptiSelect Manual powder gun for DPP01 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.

<table>
<thead>
<tr>
<th>Explosion protection</th>
<th>Protection type</th>
<th>Temperature class</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE Ex II 2 D</td>
<td>IP64</td>
<td>T6 (Powder gun)</td>
</tr>
</tbody>
</table>

**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

**OptiSelect Manual powder gun for DPP01**

The OptiSelect Manual powder gun for DPP01 is a component of the system and is thus integrated into the safety system of the plant.

For the use outside of the safety concept, corresponding measures must be taken.
About this manual

General information

This operating manual contains all the important information which you require for the working with the OptiSelect Manual powder gun for DPP01. 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 control units, powder guns etc. - should be referenced to their corresponding documents.
Function description

Field of application

The OptiSelect Manual powder gun for DPP01 is built exclusively for the electrostatic coating with organic powders. Any other use is considered as non-conform. The manufacturer is not responsible for any incorrect use, the risk for this is assumed by the user alone!

The extremely light OptiSelect Manual powder gun for DPP01 with integrated high voltage generation can produce optimum penetration and high charging efficiency. The gun is detachable, therefore easy for maintenance and repair.

Typical characteristics

- Ergonomic constructed
- Weight-optimized (520 gr.) with solid construction
- Gun balanced to reduce hand fatigue during coating operation
- Hermetically sealed construction, no powder penetration
- Powder tube integrated in the gun body with knee piece resistant to wear and powder depositions
- The remote control increases the coating flexibility by an independent adjustment of the application parameters
- Diffuser for the spraying of the powder
- Integrated high voltage cascade
- Integrated electrode rinsing air
- Grounded, ergonomic gun handle
- Easy one finger guided trigger
- Nozzles and extensions are compatible with the OptiGun Automatic gun
- Optional extension with SuperCorona kit
Scope of delivery

OptiSelect Manual powder gun for DPP01

- An OptiSelect Manual powder gun for DPP01 with gun cable, 2 m
- Rinsing air hose, 14 m
- Flat jet nozzle, complete
- Round jet nozzle with deflector kit (Ø 16, 24 and 32 mm)
- Cable tie with Velcro closure
- Gun cleaning brush
- Spare parts kit

OptiSelect Manual powder gun for DPP01

Structure

1 Spray nozzle system
2 Threaded sleeve
3 Shaft
5 Mounting hook (exchangeable)
6 Cover with remote control
7 Remote control keys
9 Gun handle
11 Gun cable
15 Diffuser
16 Rinsing air connection
17 Trigger
19 Diffuser quick release connection
High voltage generation

The control unit supplies a high-frequency low voltage signal of approx. 10 V eff. This voltage is fed through the gun cable (11) to the high voltage cascade (4) in the gun body.

In the high voltage cascade (4), the low voltage is high-transformed in a first step (c). This primary high voltage is subsequently rectified and multiplied in the high voltage cascade in a second step (d), until the required high voltage is obtained at the end (approx. 100 kV). The high voltage is now fed to the electrode (e) within the spray nozzle.

Circuit

In addition to the modulated low voltage needed for high voltage generation, there are signal lines fed through the gun cable. The control signals are used for monitoring gun trigger status and gun remote control functions.

The gun is released by a reed switch, which is operated by a magnet in the trigger (17). The gun control unit switches on the modulated low voltage, the powder transport and the rinsing air.

Powder flow and rinsing air

The rinsing air (18), used by vented spray nozzles, is connected with its designated connection on the rear side of the gun control unit (see the operating manual of the gun control unit). The functions of the spray nozzles are described in the corresponding section of this manual.

Remote control by gun

Various functions are remotely controlled with the + and - keys on the rear side of the gun:
Modify the powder output (press the + or - key on the gun). The powder output will be increased or decreased accordingly.

Change application modes (preset and program) by pressing the + and - keys on the gun at the same time. The change takes place counterclockwise. Check by observing the key LEDs on the control unit.

Note:
By pressing one of the keys, the preset values will be displayed versus the actual values!

**Spray nozzles**

**Standard set**

- Flat jet nozzle with vented central electrode
- Round jet nozzle with vented deflector and vented central electrode

**Nozzle 150 mm**

(Not part of the standard set, available separately, see spare parts list)

- Extended flat jet nozzle with vented central electrode
- Extended round jet nozzle with vented deflector and vented central electrode

**Nozzle 300 mm**

Not shown (not part of the standard set, available separately, see spare parts list)
Flat jet nozzle with vented central electrode

The vented flat jet nozzle serves for the spraying and the charging of the powder. The powder cloud obtains an oval spray pattern by the slot-shaped opening. The powder is charged by the central electrode. The high voltage, which is created in the gun cascade, is conducted through the black contact ring of the nozzle holder to the central electrode.

In order to prevent powder from sintering on the electrode, compressed air is used during the spray process. Therefore, the rinsing air is fed through the small hole in the black contact ring of the nozzle holder, and into the electrode holder.

The rinsing air adjustment on the gun control unit is described in the corresponding operating manual.

Round jet nozzle with vented deflector and vented central electrode

The vented deflector is used, to give the powder stream emerging from the gun, a cloud formation. The powder is charged by the central electrode. The high voltage, which is created in the gun cascade, is conducted through the black contact ring of the nozzle holder to the central electrode.

Since powder can accumulate on the rear side of the deflector, this must be rinsed with compressed air. The rinsing air is fed through the small hole in the black contact ring of the nozzle holder into the electrode holder, and is driven in such a way, that it flows over the surface of the deflector rear side. The rinsing air cleaning ability depends on the powder and its sintering ability.

The rinsing air adjustment on the gun control unit is described in the corresponding operating manual.
SuperCorona set

Field of application

The SuperCorona is an optional extension for the OptiSelect Manual powder gun, which allows a better surface quality when coating with the powder coating equipment.

When coating wheel rims, drawers, radiators, lamps etc. the surface quality is exceptional, also in places with higher coating layer requirements. By coating with several powder types, an "orange peel" finish can be completely avoided. By coating with structure powder, the "picture frame effect" is hardly visible.

The performance of the OptiSelect Manual powder gun for DPP01 with SuperCorona is convincing due to its very good charging and very high deposition rate as well as an improved penetration in Faraday cages. The distance between nozzle and workpiece can be reduced to 100 mm without influencing the surface finish.

SuperCorona - retrofit

Due to its modular structure, the OptiSelect Manual powder gun for DPP01 can be fast and easily extended with the light SuperCorona (approx. 60 g). With the additional SuperCorona ring attached to the OptiSelect gun, it remains repair-friendly and easy for maintenance.

Scope of delivery

The SuperCorona conversion kit consists of:

1 SuperCorona connection
2 SuperCorona ring
**SuperCorona assembly**

Before fitting the SuperCorona ring, make sure that the connection and the plug-in connector are free from grease and powder, otherwise the electric contact cannot be guaranteed.

1. Fasten the SuperCorona connection with the existing screw on the rear side of the gun (1 and 2).
2. Insert the SuperCorona ring on the threaded sleeve (3) and connect it to the SuperCorona connection (4).
Technical data

OptiSelect Manual powder gun for DPP01

Electrical data

<table>
<thead>
<tr>
<th>OptiSelect Manual powder gun for DPP01</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal input voltage</td>
<td>10 V eff.</td>
</tr>
<tr>
<td>Frequency</td>
<td>approx. 18 kHz</td>
</tr>
<tr>
<td>Nominal output voltage</td>
<td>100 kV</td>
</tr>
<tr>
<td>Polarity</td>
<td>negative</td>
</tr>
<tr>
<td>Max. output current</td>
<td>100 µA</td>
</tr>
<tr>
<td>High voltage display</td>
<td>with LED</td>
</tr>
<tr>
<td>Ignition protection</td>
<td>Ex 2 mJ T6</td>
</tr>
<tr>
<td>Temperature range</td>
<td>0 °C - +40 °C (+32 °F - +104 °F)</td>
</tr>
<tr>
<td>Max. operating temperature</td>
<td>85 °C (+185°F)</td>
</tr>
<tr>
<td>Approvals</td>
<td>![Ex II 2 D PTB05 ATEX 5007]</td>
</tr>
</tbody>
</table>

Attention:
The OptiSelect Manual powder gun for DPP01 can be connected only to the OptiStar CG06-CP and CG07-P control units!
Start-up and operation

Connecting guide

1. Check the compressed air connection from the filter regulating valve to the control unit, the dense phase pump and the Airmover. Connect the compressed air supply hose from the compressed air circuit directly to the main connection of the filter regulating valve.

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

2. Connect the black hose for fluidizing air (electrically conductive) to the output 1.5 on the rear side of the control unit.

3. Connect the grounding cable to the control unit with the grounding 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. Connect the gun cable plug to the socket 2.2 on the rear side of the control unit.

5. Connect the rinsing air hose to the electrode rinsing air output 1.4 and to the powder gun.

6. Connect the spraying air hose to the output 1.3 and to the powder gun diffuser.

7. Connect the powder hose to the dense phase pump and to the powder gun diffuser.

8. Connect the mains cable to the 2.1 Power IN plug and fasten it.
Connection with manual gun

Connection with automatic gun

Filter regulating valve

Fluidizing air

Manual gun

Automatic gun

Filter regulating valve

Fluidizing air

Connection with manual gun

Connection with automatic gun
Start-up

Note:
The further start-up procedure for the OptiSelect Manual powder gun for DPP01 is explicitly described in the OptiStar CG07-P Control unit operating instructions (chapter "Initial start-up" and "Daily start-up")!
Maintenance and cleaning

Note:
Regular and conscientious maintenance increases the service life of the unit and ensures a longer, more constant coating quality!

Daily maintenance

1. Clean the gun, see chapter "Cleaning"

Weekly maintenance

1. Clean the gun, see chapter "Cleaning"
2. Check the grounding connections of the coating booth, the suspension devices of the work pieces, or the conveyor chain

Cleaning

Cleaning the OptiSelect Manual powder gun

Frequent cleaning of the gun helps to guarantee the coating quality.

Note:
Before cleaning the powder gun, switch off the control unit. The compressed air used for cleaning must be free of oil and water!

Daily:

1. Blow off the outside of the gun and wipe, clean etc.

Weekly:

2. Remove the powder hose from the connection
3. Remove the spray nozzle from the gun and clean it with compressed air
4. Blow through the gun with compressed air, beginning from the connection in flow direction
5. Clean the integrated gun tube with the brush supplied, if necessary
6. Blow through the gun with compressed air again
7. Clean the powder hose
8. Reassemble the gun and connect it

**Attention:**
Cleaning the OptiSelect Manual gun for DPP01 with the following solvents is not allowed:
Ethylene chloride, acetone, ethyl acetate, methyl ethyl ketone, methylene chloride, premium gasoline, turpentine, tetrachloromethane, toluene, trichloroethylene, xylene!

**Note:**
Only cleaning agents with a flash point of a least 5 Kelvin above the ambient temperature, or cleaning places with technical ventilation are allowed!

**Cleaning the spray nozzles**

**Daily or after every shift**
- Clean the inside and outside of the spray nozzle with compressed air.
  Never immerse the parts in solvents!
- Check the seating of the spray nozzles.
  Make sure that the threaded sleeve is always tightened well. If the spray nozzle is just fitted loosely, there is danger of a flash-over of the gun high voltage, which leads inevitably to damaging the gun!

**Weekly:**
- Remove the spray nozzles and clean inside with compressed air. If sinterings should have formed, then they have to be removed!

**Monthly**
- Check the spray nozzles for wear

The flat jet nozzle is to be replaced, if:
- the spray pattern is no longer a regular oval
- deeper grooves are in the nozzle slot, or even the wall thickness is no longer recognizable
- the wedge of the electrode holder is worn

Nozzles with deflectors:
- if the wedge of the electrode holder is worn down, then the electrode holder is to be replaced
Dismantle the gun

The gun should only be dismantled when this is made necessary by a defect or contamination. It is only to be dismantled so far, as the desired part is accessible.

Attention:
Before cleaning the gun, switch off the control unit and disconnect the gun plug!
If the cascade is defective or the shaft is broken, send the complete shaft to an authorized ITW Gema service center!

Dismantle the gun

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8.
Replacing the powder gun cable

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8.
Assembling the gun

The assembly of the gun is carried out in the reverse order to that shown above.

Replacing parts

Except for the replacement of possible defective parts, there are very few repairs to be made.

The replacement of the cascade and the repair of the powder gun cable connection is only permitted by an authorized ITW Gema Service center! Contact your ITW Gema representative for details!
## Troubleshooting

### General information

<table>
<thead>
<tr>
<th>Fault</th>
<th>Causes</th>
<th>Troubleshooting</th>
</tr>
</thead>
</table>
| H11 (error message on control unit) | Gun not connected  
Gun plug or gun cable defective  
Remote control on powder gun defective | Connect the gun  
Replace the corresponding part, or send in for repair  
Replace the remote control (gun back cover) |
| Gun LED remains dark, although the gun is triggered | High voltage adjustment is set too low  
Gun plug or gun cable defective  
LED on gun defective | Increase high voltage  
Replace corresponding part or send in for repair  
Replace gun back cover |
| Powder does not adhere to object, although the gun is triggered and sprays powder | High voltage and current deactivated  
High voltage cascade defective  
The objects are not properly grounded | Check the high voltage and current setting  
Send in the gun for repair  
Check the grounding |
| The manual gun does not spray powder, although the control unit is switched on and the gun trigger is pressed | Compressed air not present  
Transport air not present  
Fluidization not running | Check the compressed air supply  
Connect the control unit and the dense phase pump to the compressed air  
Check the hose connection of the control unit to the dense phase pump |
| The automatic gun does not spray powder although the control unit is switched on | (see above)  
No external signal at the trigger adaptor | (see above)  
Check the external signal |
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** OptiSelect Manual powder gun for DPP01
  **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 indicated. 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 hazardous location approval will be preserved that way! The use of spare parts from other manufacturers will invalidate the ITW Gema guarantee conditions!
# OptiSelect Manual powder gun for DPP01 - spare parts list

## Remarks

1. If a part of the gun body should be broken, or the high voltage cascade in the gun body should be defective, then the whole gun body has to be sent in for repair!

2. If the powder gun cable is defective, it is to be completely sent in for repair!

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>OptiSelect Manual powder gun for DPP01 - complete negative polarity, incl. gun cable - 2 m, rinsing air hose - 14 m, flat jet nozzle, brush and parts kit, without powder hose</td>
<td>1006 100</td>
</tr>
<tr>
<td>B</td>
<td>OptiSelect Manual powder gun body (incl. cascade), negative polarity</td>
<td>1006 099</td>
</tr>
<tr>
<td>C</td>
<td>Cascade (negative polarity) - complete</td>
<td>1000 809</td>
</tr>
<tr>
<td>1</td>
<td>Gun body</td>
<td>1001 155</td>
</tr>
<tr>
<td>2</td>
<td>Grip - complete set (pos. 5, 6, 7 and 8)</td>
<td>1000 807</td>
</tr>
<tr>
<td>3</td>
<td>Trigger - complete (incl. pos. 3)</td>
<td>1001 341</td>
</tr>
<tr>
<td>4</td>
<td>Compression spring - 0,36x4,2x49,4 mm</td>
<td>1001 487</td>
</tr>
<tr>
<td>5</td>
<td>Trigger cover</td>
<td>1000 801</td>
</tr>
<tr>
<td>6</td>
<td>Grip</td>
<td>1000 806</td>
</tr>
<tr>
<td>7</td>
<td>Radial gasket</td>
<td>1000 803</td>
</tr>
<tr>
<td>8</td>
<td>Gun cable - L=2 m, complete</td>
<td>1006 096</td>
</tr>
<tr>
<td>9</td>
<td>Extension cable for gun cable - L=14m, incl. clamp</td>
<td>1002 162</td>
</tr>
<tr>
<td>10</td>
<td>Cable clamp for extension cable</td>
<td>1002 064</td>
</tr>
<tr>
<td>11</td>
<td>Grub screw - M3x8 mm</td>
<td>1000 844</td>
</tr>
<tr>
<td>12</td>
<td>Powder tube - complete</td>
<td>1001 339</td>
</tr>
<tr>
<td>13</td>
<td>O-ring - Ø 12x1.5 mm</td>
<td>1000 822</td>
</tr>
<tr>
<td>14</td>
<td>Rinsing air connection</td>
<td>1000 804</td>
</tr>
<tr>
<td>15</td>
<td>Clip ring</td>
<td>1000 898</td>
</tr>
<tr>
<td>16</td>
<td>Compression spring</td>
<td>1001 488</td>
</tr>
<tr>
<td>17</td>
<td>Hopper cover - complete</td>
<td>1000 617</td>
</tr>
<tr>
<td>18</td>
<td>Print holder - complete (incl. pos. 14.2)</td>
<td>1002 029</td>
</tr>
<tr>
<td>19</td>
<td>Radial gasket</td>
<td>1000 795</td>
</tr>
<tr>
<td>20</td>
<td>Gun holder plate - complete</td>
<td>1002 028</td>
</tr>
<tr>
<td>21</td>
<td>Cap screw - M3x8 mm (not shown)</td>
<td>202 363</td>
</tr>
<tr>
<td>22</td>
<td>Diffuser - complete (see corresponding spare parts list)</td>
<td>1000 617</td>
</tr>
</tbody>
</table>
OptiSelect Manual powder gun for DPP01 - spare parts

![OptiSelect Manual powder gun for DPP01 - spare parts](image-url)
## OptiSelect Manual powder gun for DPP01 - spare parts list (cont.)

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Mounting hook (exchangeable)</td>
<td>1000 877</td>
</tr>
<tr>
<td>17</td>
<td>Countersunk head screw - M 4x8 mm, plastic</td>
<td>263 516</td>
</tr>
<tr>
<td>18</td>
<td>PT-screw</td>
<td>1000 843</td>
</tr>
<tr>
<td>19</td>
<td>Threaded sleeve - complete</td>
<td>1000 948</td>
</tr>
<tr>
<td>20</td>
<td>Flat jet nozzle - complete</td>
<td>1000 047</td>
</tr>
<tr>
<td>20.1</td>
<td>Electrode holder - complete</td>
<td>1000 055</td>
</tr>
<tr>
<td>20.2</td>
<td>Flat jet nozzle</td>
<td>1000 049</td>
</tr>
<tr>
<td></td>
<td>Cleaning brush - Ø 12 mm</td>
<td>389 765</td>
</tr>
<tr>
<td></td>
<td><strong>Parts set (not shown), consisting of:</strong></td>
<td>1002 359</td>
</tr>
<tr>
<td></td>
<td>Round jet nozzle - NS02, complete</td>
<td>382 922</td>
</tr>
<tr>
<td></td>
<td>Cable clamp</td>
<td>303 070</td>
</tr>
<tr>
<td></td>
<td>Deflector - Ø 16 mm</td>
<td>331 341</td>
</tr>
<tr>
<td></td>
<td>Deflector - Ø 24 mm</td>
<td>331 333</td>
</tr>
<tr>
<td></td>
<td>Deflector - Ø 32 mm</td>
<td>331 325</td>
</tr>
<tr>
<td></td>
<td>O-ring - Ø 12x1.5 mm</td>
<td>1000 822</td>
</tr>
<tr>
<td></td>
<td>Countersunk head screw - M 4x8 mm, plastic</td>
<td>263 516</td>
</tr>
<tr>
<td></td>
<td>Powder hose - Ø 7 mm (not shown)</td>
<td>1005 097</td>
</tr>
</tbody>
</table>
## OptiSelect Manual powder gun for DPP01 - nozzle combinations

<table>
<thead>
<tr>
<th>Nozzle set - flat jet, NF08, pos. 1, 2</th>
<th>1000 047#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nozzle set - round jet, pos. 5, 6, 9</td>
<td>382 922#</td>
</tr>
<tr>
<td>1 Electrode holder (flat jet nozzle)</td>
<td>1000 055#</td>
</tr>
<tr>
<td>2 Flat jet nozzle</td>
<td>1000 049#</td>
</tr>
<tr>
<td>3 Threaded sleeve</td>
<td>1000 948#</td>
</tr>
<tr>
<td>5 O-ring - Ø 5x1 mm</td>
<td>231 606#</td>
</tr>
<tr>
<td>6 Round jet nozzle</td>
<td>378 518#</td>
</tr>
<tr>
<td>7 Deflector - Ø 16 mm</td>
<td>331 341#</td>
</tr>
<tr>
<td>7.1 Deflector - Ø 24 mm</td>
<td>331 333#</td>
</tr>
<tr>
<td>7.2 Deflector - Ø 32 mm</td>
<td>331 325#</td>
</tr>
<tr>
<td>8 Extension - 150 mm</td>
<td>378 852#</td>
</tr>
<tr>
<td>8.1 Extension - 300 mm</td>
<td>378 860#</td>
</tr>
<tr>
<td>9 Electrode holder, incl. pos. 5 (round jet central electrode)</td>
<td>382 914#</td>
</tr>
</tbody>
</table>

# Wearing part

---

**Diagram:** OptiSelect Manual powder gun for DPP01 - nozzle combinations
### OptiSelect Manual powder gun for DPP01 - Super-Corona

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SuperCorona - complete set, without extension, L=215 mm</td>
<td>1002 066#</td>
</tr>
<tr>
<td></td>
<td>SuperCorona - complete set, for extension 150, L=365 mm</td>
<td>1002 067#</td>
</tr>
<tr>
<td></td>
<td>SuperCorona - complete set, for extension 300, L=515 mm</td>
<td>1002 068#</td>
</tr>
<tr>
<td>2</td>
<td>SuperCorona - connection</td>
<td>1001 466#</td>
</tr>
<tr>
<td>3</td>
<td>SuperCorona ring</td>
<td>391 980#</td>
</tr>
<tr>
<td></td>
<td>SuperCorona ring, for version with extension 150 mm</td>
<td>394 173#</td>
</tr>
<tr>
<td></td>
<td>SuperCorona ring, for version with extension 300 mm</td>
<td>394 203#</td>
</tr>
</tbody>
</table>

# Wearing part

![Diagram of SuperCorona components](attachment:image.png)
# OptiSelect Manual powder gun for DPP01 - diffuser

<table>
<thead>
<tr>
<th>Diffuser - complete</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Adaptor piece</td>
<td>1005 260</td>
</tr>
<tr>
<td>2</td>
<td>Fluidizing tube</td>
<td>1005 262</td>
</tr>
<tr>
<td>3</td>
<td>O-ring - Ø 19x1.5 mm</td>
<td>1005 749</td>
</tr>
<tr>
<td>4</td>
<td>Connector</td>
<td>1005 261</td>
</tr>
<tr>
<td>5</td>
<td>O-ring - Ø 12x1.5 mm</td>
<td>1000 822</td>
</tr>
<tr>
<td>6</td>
<td>Elbow joint - 1/8&quot;a, Ø 6 mm</td>
<td>254 061</td>
</tr>
</tbody>
</table>

![OptiSelect Manual powder gun for DPP01 - diffuser](image)
## OptiSelect flat jet nozzles - overview

<table>
<thead>
<tr>
<th>Application</th>
<th>A</th>
<th>B</th>
<th>A + B</th>
<th>Threaded sleeves</th>
<th>Multispray adaptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profiles (Standard nozzle)</td>
<td>NF08 1000 049</td>
<td>1000 055</td>
<td>NF08 1000 047</td>
<td>1000 948</td>
<td>1003 634*</td>
</tr>
<tr>
<td>For custom design</td>
<td>NF09* 1000 118</td>
<td></td>
<td>NF09 1000 119</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For recess openings and cavities</td>
<td>NF11 1000 122</td>
<td></td>
<td>NF11 1000 123</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angled spray pattern (Boron Nitride)</td>
<td>NF12 1000 124</td>
<td></td>
<td>NF12 1000 125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide flat spray for large surface areas</td>
<td>NF10 1000 120</td>
<td></td>
<td>NF10 1000 121</td>
<td>383 074</td>
<td>1003 897*</td>
</tr>
<tr>
<td>Flat jet nozzle for metallic powders</td>
<td>NF16-M* 1003 182</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* not type approved (ATEX)
### OptiSelect round jet nozzles - overview

<table>
<thead>
<tr>
<th>For large flat surface areas</th>
<th>NS02 378 518</th>
<th>382 914</th>
<th>NS02 382 922</th>
<th>1000 948</th>
<th>Deflectors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td>Ø 16 mm 331 341</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ø 24 mm 331 333</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ø 32 mm 331 325</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ø 50 mm 345 822</td>
</tr>
</tbody>
</table>
## OptiSelect gun extensions and SuperCorona

<table>
<thead>
<tr>
<th></th>
<th>Gun extensions</th>
<th>SuperCorona</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>L = 150 mm</td>
<td>L = 300 mm</td>
</tr>
<tr>
<td>Ø 40 mm</td>
<td>378 852</td>
<td>378 860</td>
</tr>
<tr>
<td>Ø 25 mm Flat spray</td>
<td>396 923</td>
<td>396 931</td>
</tr>
<tr>
<td>Ø 25 mm Deflector</td>
<td>396 940</td>
<td>396 958</td>
</tr>
</tbody>
</table>
## Powder hoses - overview

<table>
<thead>
<tr>
<th>Powder hose</th>
<th>Application</th>
<th>Diameter</th>
<th>Part no.</th>
<th>Material</th>
<th>Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast color change (standard)</td>
<td>Ø 11/16 mm</td>
<td>105 139</td>
<td>POE</td>
<td>66</td>
<td>antistatic</td>
<td></td>
</tr>
<tr>
<td>Fast color change - low powder flow</td>
<td>Ø 10/15 mm</td>
<td>1001 673</td>
<td>POE</td>
<td>74</td>
<td>antistatic</td>
<td></td>
</tr>
<tr>
<td>Fast color change - high powder flow</td>
<td>Ø 12/18 mm</td>
<td>1001 674</td>
<td>POE</td>
<td>75</td>
<td>antistatic</td>
<td></td>
</tr>
<tr>
<td>DPP01 suction side</td>
<td>Ø 4,5/8,1 mm</td>
<td>1005 454</td>
<td>POE</td>
<td>83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPP01 suction side / hot coating</td>
<td>Ø 6,0/9,6 mm</td>
<td>1001 102</td>
<td>POE</td>
<td>69</td>
<td>antistatic</td>
<td></td>
</tr>
<tr>
<td>Standard hose for DDP01</td>
<td>Ø 7,0/11,5 mm</td>
<td>1005 097</td>
<td>POE</td>
<td>80</td>
<td>antistatic</td>
<td></td>
</tr>
<tr>
<td>DDP01 powder hose for hot coating</td>
<td>Ø 8,0/12,5 mm</td>
<td>1005 098</td>
<td>POE</td>
<td>81</td>
<td>antistatic</td>
<td></td>
</tr>
<tr>
<td>Enamel powder</td>
<td>Ø 11/16 mm</td>
<td>103 128</td>
<td>PVC</td>
<td>1004</td>
<td>flexible powder hose</td>
<td></td>
</tr>
<tr>
<td>Used on previous equipment</td>
<td>Ø 12/20 mm</td>
<td>100 080</td>
<td>PVC</td>
<td>1005</td>
<td>flexible powder hose</td>
<td></td>
</tr>
</tbody>
</table>
## Powder hose connectors - overview

<table>
<thead>
<tr>
<th>Powder hose connector</th>
<th>Application</th>
<th>Part no.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hose connector for 7-8 mm hoses</td>
<td>1005 263</td>
<td>O-ring is included</td>
</tr>
</tbody>
</table>
# Miscellaneous parts

<table>
<thead>
<tr>
<th>Application cup</th>
<th>150 ml</th>
<th>500 ml</th>
<th>Adaptor for EasySelect gun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image1" alt="150 ml" /></td>
<td><img src="image2" alt="500 ml" /></td>
<td><img src="image3" alt="Adaptor for EasySelect gun" /></td>
</tr>
<tr>
<td></td>
<td>1004 552</td>
<td>1002 069</td>
<td>1004 564</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PGC adaptor</th>
<th>PGC control unit</th>
<th>OptiSelect gun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image4" alt="PGC control unit" /></td>
<td><img src="image5" alt="OptiSelect gun" /></td>
</tr>
<tr>
<td></td>
<td>1001 952</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tribo-Corona adaptor</th>
<th>Tribo-Corona adaptor</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image6" alt="Tribo-Corona adaptor" /></td>
<td></td>
</tr>
<tr>
<td>1001 869</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trigger adaptor for automatic guns</th>
<th>Trigger adaptor for automatic guns</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7" alt="Trigger adaptor for automatic guns" /></td>
<td></td>
</tr>
<tr>
<td>OptiStar</td>
<td>1002 772</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gun extension cable</th>
<th>Gun extension cable</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image8" alt="Gun extension cable" /></td>
<td></td>
</tr>
<tr>
<td>L=6 m 1002 161</td>
<td>L=14 m 1002 162</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gloves, antistatic (1 pair)</th>
<th>Gloves, antistatic (1 pair)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image9" alt="Gloves, antistatic (1 pair)" /></td>
<td></td>
</tr>
<tr>
<td>800 254</td>
<td></td>
</tr>
</tbody>
</table>