

OptiCenter (OC01/OC02)

Your powder management solution

ITW Gema presents a new generation of powder management systems: the new OptiCenter01/02. It is clean, it is quick, it produces outstanding coating results, and it is a new modular concept for integrated powder management.

First of all, OptiCenter is convincing in terms of its functional properties.

Short suction tubes, new injectors, and optimized pneumatic connections ensure a higher powder flow rate with less air consumption, resulting in reduced wear and tear. The overall design allows extremely quick color change. No separate tools are required, and all functions are integrated into the system. The compact design forms an ideal basis to integrate gun, axis and booth control. ITW Gema supplies the OptiCenter with a controlled powder loop and process. This enables extremely economical powder usage and leads to outstanding coating results.



OptiCenter is also a cost-effective investment: it is time saving due to its quick color change performance and space saving due to its compact design with integrated control cabinets.

OptiCenter shows superior ergonomic features. Handling is simple and intuitive. Manual work is reduced to a minimum. With the powder cone, placed on a trolley, the only weight to be lifted is the plastic bag from the original powder package. The closed powder loop prevents powder loss from fluidization and the environment around the OptiCenter stays clean and pleasant for the operator.



Technical Data OC01/OC02

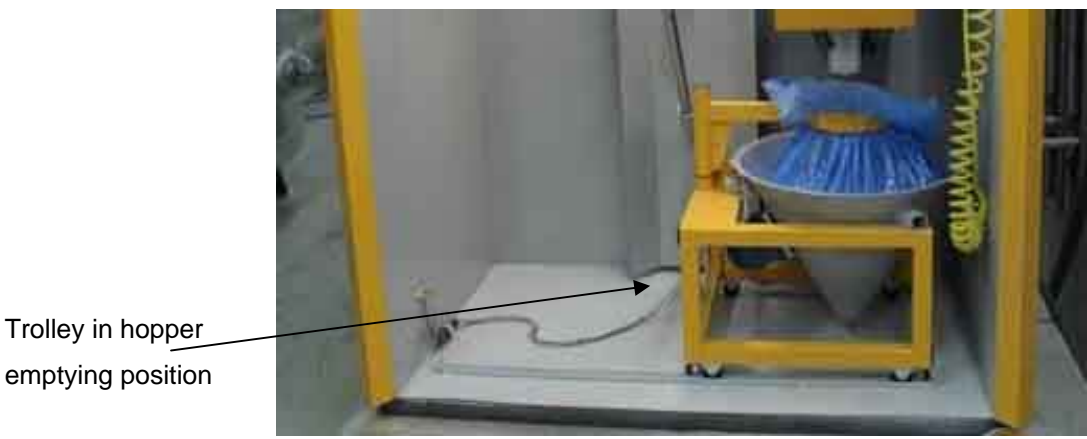
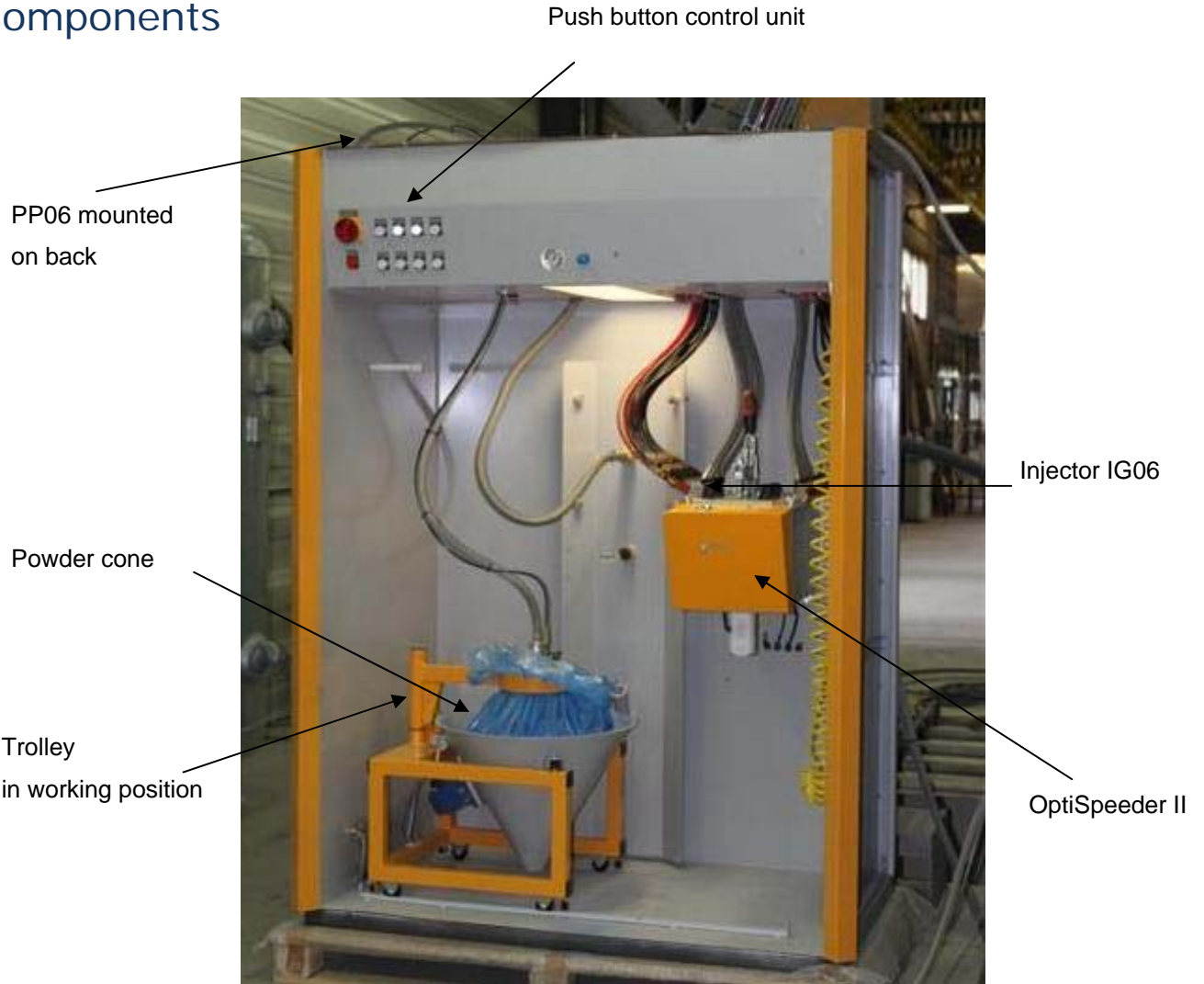
| Dimensions | |
|-------------------|---------|
| Breadth | 1100 mm |
| Depth | 1400 mm |
| Height | 2100 mm |
| Weight | 300 kg |

| Electrical Data | |
|------------------------|------------------|
| Nominal input voltage | 230 V / 50/50 Hz |
| Connected load | 500 W |
| Protection class | IP54 |

| Pneumatic Data | |
|--|--|
| Input pressure | 6 – 8 bar |
| Compressed air consumption during coating | 5 Nm ³ /h |
| Compressed air consumption during cleaning | 20 Nm ³ /h per gun 300 Nm ³ /h over 5 minutes |
| Water vapor content of compressed air | max. 1.3 g/ Nm ³ |
| Oil vapor content of compressed air | max. 0.1 mg/ Nm ³ |

| Powder Data | |
|--------------------------|--|
| Minimum amount necessary | 2 kg |
| Maximum amount necessary | 5 kg for up to 24 guns 6 kg for up to 30 guns |
| Conveying performance | 230 g/min per gun |
| Recovery | approx. 3.5 kg/min (Cyclone – Opticenter) |

Components



OptiSpeeder II



OptiSpeeder II open for demonstration

Optispeeder II is the core of this new powder center. It is available in two sizes, depending on the numbers of guns. A 5 liter powder container with a fluidizing plate provides just the right amount of powder for up to 24 guns. For up to 30 guns, we deliver a 6 liter version of the powder container.

The OptiSpeeder II is equipped with a powder level control, and the speeder works with very small powder level differences. Together with the optimized angles of the injectors and the short suction distances, you will achieve significantly improved coating results.

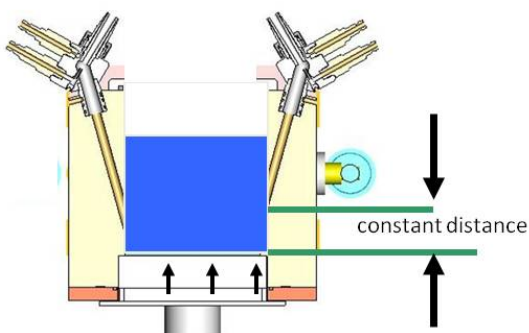
The automatic cleaning process works very efficiently and with little manual touch-up. The result is very satisfying even in difficult cases.



after automatic cleaning



with manual touch-up

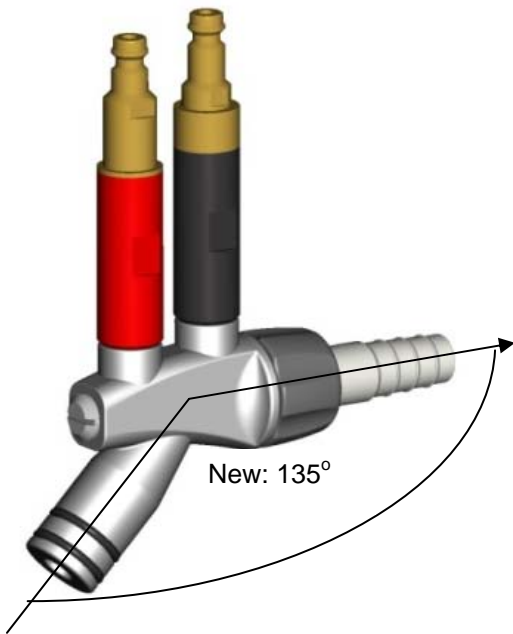


The most convincing advantage of the OptSpeeder II comes from the construction of the hopper:

the suction tubes are 65% shorter than in the powder center. This results in a smoother powder flow with 10% less air consumption.

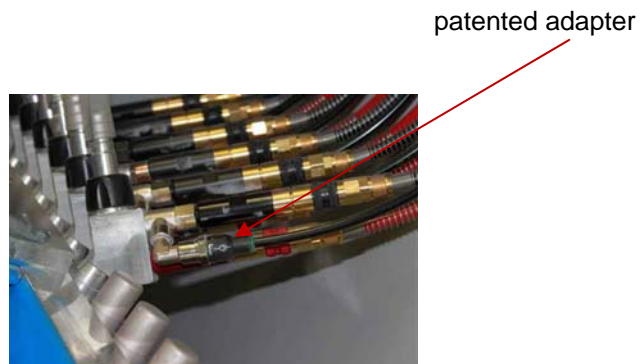
The suction point of the injector remains at a constant distance from the fluidized bottom plate which supports constant powder output and reduces spitting.

Injector IG06



The injector IG06 is the logical next step in the development of the approved injector technology from ITW Gema. With its new design, the suction elbow is opened to 135°. This causes less resistance in the suction process. As a result, we get even better application performance. The smooth powder flow results in an even softer cloud. The injector also consumes less compressed air than its predecessor, and this in turn leads to less wear and tear.

For the cleaning process, we add extra air for convincing cleaning results. The cleaning process incorporates a patented adapter. See image below.



Trolley and powder cone



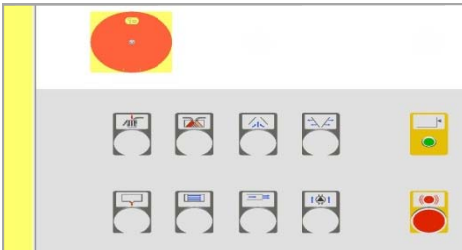
The vibrating powder cone is the same type as the one installed in the MagicCenter. It holds a 20 kg standard powder bag (and the old 25kg bags) and supplies fresh powder to the system.

The powder cone is mounted on a trolley which can be moved from the left to the right and vice versa. The coating position is on the left. There it is connected to the tube for fresh powder supply. The powder pump PP06 forms an integral part of this fresh powder system.



During the cleaning cycle, the trolley has to be moved to the right where it is positioned under the Optifeeder and receives the powder from the powder hopper via a pinch valve-activated opening. This is a very efficient, powder-saving and ergonomic way to move the powder from the hopper back into the original bag

Control Unit



r OC02

The OptiCenter can be delivered with two different operating panels. OC01 has a push button control, whereas OC02 is operated via a 5.7" touch screen.

Both versions incorporate tried and tested PLC technology.

The main functions are:

- Spray to waste
- Spray recovery
- Exhaust on
- Cone vibration on/off

The cleaning steps are simple and clearly structured:

1. Hopper emptying
2. Hopper cleaning
3. Injector & powder hose cleaning
4. Fresh & recovery pump cleaning

Scope of Delivery

| | Product | available from |
|---|--|-----------------------|
| | Opticenter OC01 | October 2010 |
| 1 | OptiCenter with push putton panel | |
| 1 | Ducting | |
| | Opticenter OC02 | November 2010 |
| 1 | OptiCenter with touch panel | |
| 1 | Ducting | |
| | Opticenter OC01/02 with gun and axes control | November 2010 |
| 1 | Opticenter OC01/02 | |
| 1 | AS05 | |
| 1 | Ducting | |
| | Opticenter OC01/02 with gun, axes and booth control | November 2010 |
| 1 | Opticenter OC01/02 | |
| 1 | AS05 | |
| 1 | ICS03 | |
| 1 | Ducting | |

Accessories Available

Product

| | |
|--|-----------|
| PS5 sieve above cone (offline cleaning) | planned |
| US03 ultrasonic sieve above cone (offline cleaning) | planned |
| 40 kg powder cone with pump (for more the 20 injectors) | available |

Options for Integration



stand-alone

| Dimensions | |
|------------|---------|
| Breadth | 1100 mm |
| Depth | 1500 mm |
| Height | 2100 mm |
| Weight | 300 kg |



with gun and axes control (ACS)

| Dimensions | |
|------------|---------|
| Breadth | 1600 mm |
| Depth | 1500 mm |
| Height | 2100 mm |
| Weight | 550 kg |



with gun, axes and booth control (ACS and ICS)

| Dimensions | |
|------------|---------|
| Breadth | 1600 mm |
| Depth | 1500 mm |
| Height | 2100 mm |
| Weight | 880 kg |

In each version, the control cabinets can be attached on the left or on the right side.

Product Differentiation

PowderCenter VZ



OptiCenter OC



MagicCenter



| | | | |
|----------------|--|--|---|
| Number of guns | up to 36 | up to 30 | up to 24 |
| Fresh powder | no fresh powder supply | integrated fresh powder system and original powder bag in vibrating powder cone | integrated fresh powder system and original powder bag in vibrating powder cone |
| Powder circuit | open system | closed loop system no powder loss | closed loop system no powder loss |
| Application | constant powder flow | smoother powder flow because of short suction tubes and new injector type | smoother powder flow because of short suction tubes and new injector type |
| Exhaust air | exhaust air unit with ventilator | no integrated exhaust system air mover to booth exhaust system | no integrated exhaust system air mover to booth exhaust system |
| Cleaning | automatic cleaning of powder hoses, manual cleaning of suction tubes, hopper and housing | automatic cleaning cycle (4 steps) with minimal touch-up for hopper and fresh powder suction lance | automatic cleaning program, manual touch-up for fresh powder suction lance only |
| Environment | dusty | clean | clean |
| Space | stand-alone | stand-alone or gun and booth control integrated | stand-alone or gun control integrated |