

Gema Powder Coating Equipment



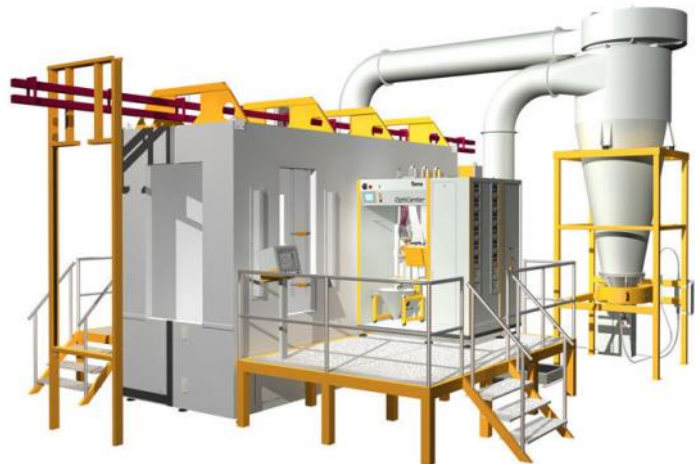
Surface Finishing
Equipment Group

Powder coating is accepted as a solution to increasingly stringent environmental regulations, rising costs, and demands by consumers for higher quality and more durable products.

The Surface Finishing Equipment Group work in conjunction with GEMA, the industries global powder coating equipment development pioneer. We provide everything from manual machines, automatic guns, reciprocators, powder booths, colour change systems, along with the after sales support of spares servicing, and spares.

Gema Powder Coating Equipment Range

- Complete Powder Coating Plants
- Gema Optiflex Pro Manual Machines
- Gema Opti Automatic Guns and Reciprocators
 - Booths and Curing Ovens
- Powder Feed and Colour Change Systems



THE SURFACE FINISHING EQUIPMENT GROUP are :-

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OptiCenter® OC08

Clean, efficient and optimum coating conditions
for injector applications



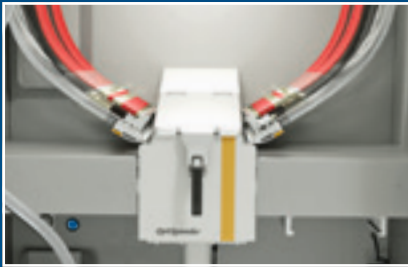
Optimum colour changes and low operating costs

With the OptiCenter OC08 powder management center and the integrated OptiFlow injector technology, you benefit from fast colour changes, stable coating results and clean working conditions with easy maintenance and servicing. The system is simple and intuitive to use.

Your global partner for high quality powder coating

Gema

Excellent coating results and minimal powder consumption



OptiSpeeder powder hopper

Efficient and flexible color changes

The heart of the OptiCenter is the OptiSpeeder powder hopper, which optimally conditions the powder by fluidization. The new OptiSpeeder has a large inclined opening, which allows a quick and easy access and insight into the interior of the powder container. The short suction distances are designed for an even powder flow and best coating results!

The closed powder circuit is controlled fully automatically and ensures a clean working environment as well as measurably greater efficiency.



The OptiSpeeder is equipped with a powder level detection and automatic fresh powder feed, which guarantee a constantly available powder quantity.

The switching from fresh powder to recovery operation and cleaning mode is fully automatic.



OptiSpeeder with OptiFlow injectors

Individual cleaning efficiency

With the fully automatic cleaning of the powder hopper and all powder-carrying components, you achieve the highest cleaning efficiency! The user can apply the cleaning modes individually:

- Quality Mode: cleaning program for contrasting colours and highest cleaning demands
- Fast Mode: quick cleaning program for color changes within the same color spectrum
- Custom Mode: user-specific color change programs

Variable powder level detection

The integrated stepless level control detects the powder level in the powder hopper and shows it on the display at any time, maintaining application consistency perfectly. Even small powder quantities are detected and allow the coating of small production batches.

Constant performance and low wear

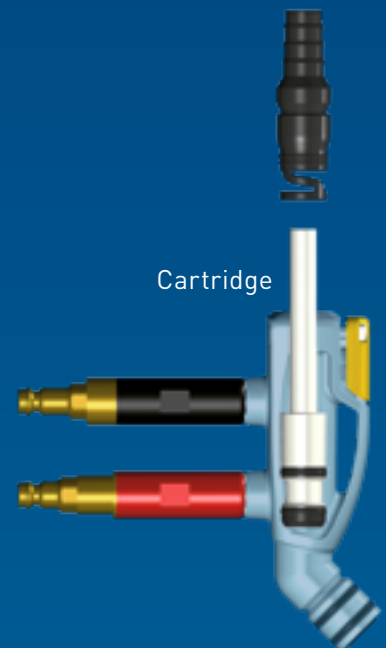
One-piece cartridge design for reliable powder flow

The OptiFlow injectors are directly integrated into the OptiSpeeder. The new generation of OptiFlow Injector optimizes the Venturi principle in relation to transfer efficiency and minimal wear. Gema uses the unique Inline Design to consistently and gently transport the powder from the powder hopper to the powder gun. This maintains optimum powder condition and ensures minimal wear part consumption.

By simply exchanging the innovative single-component cartridge incorporating the injector nozzle and conveying insert, the injector performance is optimally maintained.

The usage of fewer parts and the seamless design of the injector improves the ability for fast color changes.

The "Plug & Convey" mechanism ensures quick colour change and cleaning by removing the powder hose and cartridge in one easy step.



Plug & Convey

OptiStar® 4.0: Ergonomic and powerful

The OptiStar gun control is the key to achieving accurate and reproducible coating results. The control unit is integrated into the control cabinet of the OptiCenter and allows a precise control of the powder application.

- Digital Valve Control (DVC) technology for consistent and reproducible powder powder output
- The Precision Charge Control mode (PCC) adjusts the current flow even in the lowest amperage range (0-10 μ A) with the highest precision, eliminating overcharging of sensitive powder
- Intuitive usage of the display for direct access to all coating parameters: high voltage, spray current, powder output and total air
- 3 standard programs (flat parts, profiles and re-coating)
- 250 customized programs available at any time via the display screen
- Powder output alignment for all automatic guns
- CAN bus technology for horizontal integration into the higher-level plant control system



Trendsetting and intuitive



OptiControl powder management control

Easy operation and programming

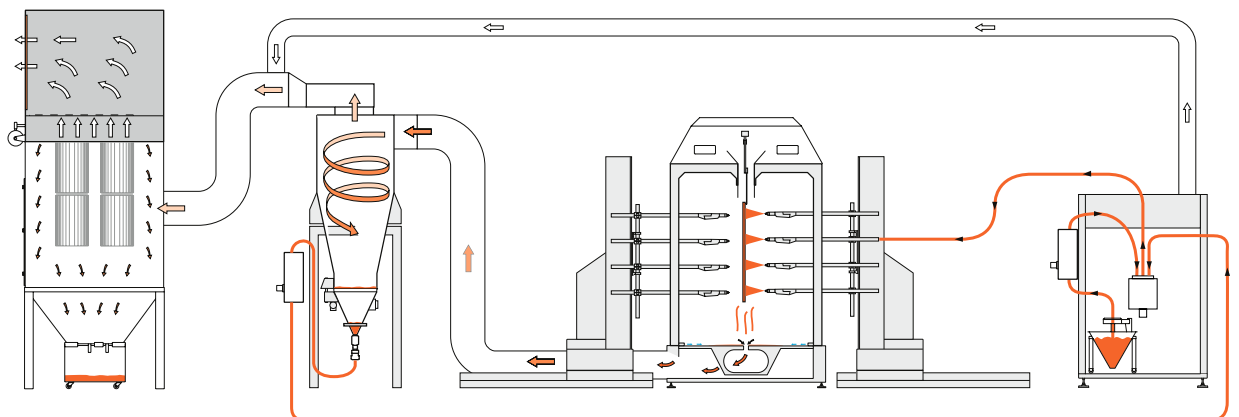
The operation of the OptiCenter is particularly intuitive and takes place via the 7" touch screen of the integrated OptiControl control unit.

The OptiControl control unit has the following highlights:

- Clear user interface: Easy operation of the coating and color change process
- Coating process: Automatic and programmable changeover time from fresh powder to recovery operation
- Minimum Fresh Powder Ratio Control: Quality increase for coating in recovery operation through controlled additional fresh powder supply
- Programmable powder level for standard and small series coating
- Selection of the cleaning programs: Quality Mode for deep cleaning, Fast Mode for quick cleaning and Custom Mode for user-specific color change programs

Closed loop and efficient powder circuit

The powder circuit guarantees a continuous and consistent powder feed with minimal wear and tear on parts. The OptiCenter, injectors, powder pumps and recovery system are all ideally matched to each other and ensure perfect working conditions. With a fresh powder feed and sieving solution, the most demanding quality requirements and expectations can be met.



Flexible design and configuration

Flexible design

The application possibilities of the OptiCenter are extremely diverse. Depending on requirements, it can be supplied as a stand-alone product or as an integrated component of a complete system with gun, axis and booth control.

The OptiCenter has a compact design and the control elements can be arranged flexibly on the right or left side. This results not only in space-saving, but also ergonomically optimal solutions.



OptiCenter OC08

Gentle powder recovery

The powder recovery system is based on the proven OptiFeed powder pumps from Gema. These pumps convey the powder gently to the OptiSpeeder. The OptiFeed pumps do not have any moving parts and therefore require only minimum maintenance.

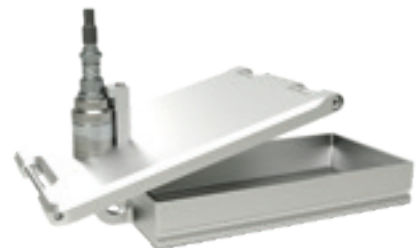


OptiFeed powder pump

A variety of configurations

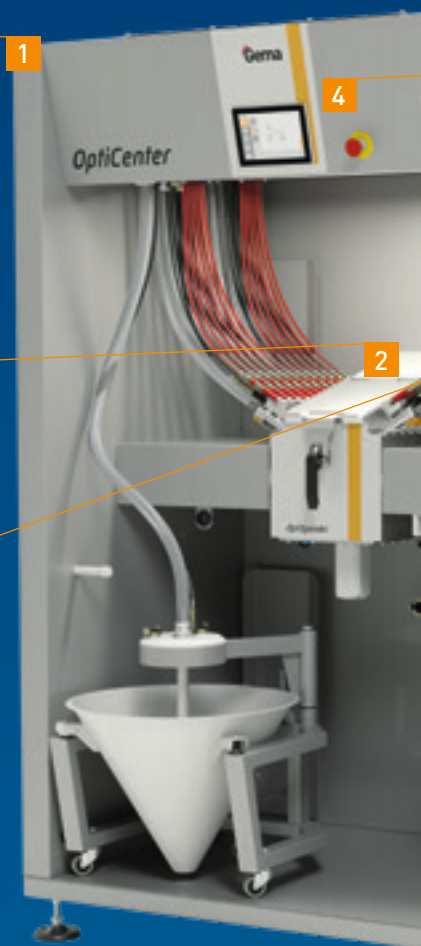
The OptiCenter can be equipped flexibly according to your individual demands. The equipment variants include the following:

- Ultrasonic sieve insert US07: The free-swinging sieve surface ensures loss-free energy coupling for ultrasonic sieving and enables efficient sieving performance.
- Variants of the internal fresh powder feed:
 - Cone (standard)
 - Vibrating table for powder box
 - Powder Hopper (50l/100l volume)
- External fresh powder supply with OptiFeed FPS16 BigBag



Ultrasonic sieve insert US07





1

OptiCenter OC08

Excellent Coating Results

- Short suction distances
- Variable powder level detection
- Continuous supply of fresh and recycled powder
- Integrated ultrasonic sieve solution

Quick Color Change

- Closed powder circuit
- Fully-automated cleaning process
- Fully automatic switching from fresh powder to recovery operation

Compact Design

- Electrostatic + Powder Management
- Flexible, versatile configurations

Ergonomic and intuitive Interface

Easy Maintenance

2

OptiSpeeder

- Closed powder hopper
- Generous access to the powder hopper
- Versions: 24 / 36 integrated injectors
- Constant powder level

Cleaning

- Automatic cleaning of powder hopper
- Automatic cleaning of the suction tubes, powder hoses and guns
- Automatic cleaning of the fresh powder and recovery pump and hoses

3

Injector Integration

- Direct integration of the injectors at the powder hopper
- Short suction distances for faster reaction times when switching guns on/off
- Completely pre-assembled system, ready for operation



4 **OptiControl**

- Programmable changeover time from fresh powder to recovery operation
- Minimum Fresh Powder Ratio Control
- Programmable powder level
- Cleaning programs: Quality, Fast and Custom mode

5 **OptiFlow IG07**

- Innovative single-component cartridge design for consistent powder output
- Consistent powder flow for uniform film thickness
- Powder outputs of up to 300 g/min achievable depending upon hose length and diameter
- Colour change optimized through Inline Cartridge Design
- «Plug & Convey» function for for quickest cleaning and maintenance access
- Ease of integration into existing coating systems

6 **OptiStar 4.0**

- Intuitive Interface
- Easy Programming for high voltage, current and powder output
- Accurate and repeatable powder output settings
- PCC (Precise Charge Control) for exact current control below 10 μ A in 0.5 increments!
- CAN-Bus for communication with superior control system
- Robust and rugged design

Gema Switzerland

Your global partner for high quality powder coating

Take advantage of our expertise and experience from more than 50 years of electrostatic powder coating applications. From simple hand coating through to fully automated powder coating, we offer solutions that meet the demands and requirements of customers around the world in a wide range of industrial sectors. A global service network ensures you always get professional support, at any time and any place!

Gema is part of Graco Inc. Our goal is to help our customers to increase their productivity while creating attractive, long-lasting products. Our experts continually set new standards in the surface coating industry.



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