# **Enamel Solutions**

Count on process stability and wear resistance!



#### Enamel powder coating systems

Gema Switzerland GmbH has a full range of solutions, developed specifically for the porcelain enamel coating.

Wear resistant constructions, high transfer efficiency, outstanding application quality, short return of investment are the common advantages of our enamel systems.



# Count on process stability and wear resistance!





#### The best enameling conditions

The MRS booth creates ideal airflow conditions for an efficient enamel application. The outstanding separation efficiency of the sinter-lamella filters avoids enamel losses and ambient contamination.

#### Compact and gentle powder recovery

The recovery system is integrated in the booth walls. This very compact solution preserves the enamel powder quality in the recovery circuit. No ducts means no enamel deterioration and better application quality.

#### Robust and user-friendly

The simple and robust design, the long life-time of the filters and of all the other components makes the MRS the ideal solutions if you are looking for a reliable system with reduced maintenance costs and quick return of investment.

#### Automated floor cleaning

The optional squeegee system cleans the accessible floor booth continuously. Less enamel is left on the floor and the cleaning time is reduced significantly.



#### Compact and flexible, tailor-made to your needs

The MRS system can be designed in a wide variety of configurations. Whether for white or ground enamel, whether for inside or outside enameling, whether for flat parts or for cavities, whether in a pure automatic configuration or combined with one or more manual coating stations, the MRS is suitable for all kind of applications.

Its compact design is very easy to integrate into any plant layout. In our state-of-the-art test lab we determine in collaboration with you the optimal configuration, designed to your requirements and needs.



#### Designed for enamel powder

The Gema enamel systems are designed to minimize the maintenance time and costs. All the main gun and injector components are made in wear-resistant ceramic material. They can be disassembled in a flash for cleaning or inspection.

#### Quality always at its best

The gun current limitation adjustment significantly reduces the back-ionization effect and improves the application quality. The patented DVC technology ensures a precise and constant enamel delivery. This results in a more uniform layer thickness distribution and lower enamel consumption.

#### All parameters at one glance

With the control modules OptiStar and MagicControl you have a grip on all coating parameters. Clear symbols, simple programming and a perfect reproducibility of your results. Increase your coating quality and get easy ISO certification of your production line!





#### The most advanced enamel application technology

The OptiGun enamel powder guns and the OptiStar control units are a perfect combination of coating efficiency and user-friendliness.

- Perfect transfer efficiency, lower overspray and improved application quality thanks to the 100 kV high performance cascade
- Patented Digital Value Control technology for accurate and reproducible enamel output
- Uniform enamel delivery and charging for a regular layer thickness distribution and reduced enamel consumption
- User-friendly Display-Pilot for quick access to pre-set and customized coating programs
- Reduced maintenance costs thanks to the wear resistant design with ceramic components

#### SuperCorona®

The optional SuperCorona<sup>®</sup> collects and neutralizes the free ions that would disturb the enamel deposition on the object. This improves the surface quality.









### Booth design customized to your needs

The booth floor is flat and allows easy and safe access for maintenance. Booth walls are available in different materials for every customer need. The plastic sandwich construction features reduced powder accumulation and easier cleaning thanks to the seamless and non conductive surface. Stainless steel walls are the most robust and wear-resistant solution.

#### For a good atmosphere

The sinter-lamella filter elements have an outstanding 99.99% separation efficiency. Thanks to their very robust construction they have an exceptionally long life-time with the lowest maintenance costs.

### All the powder you want, where and when you want it

Gema

The compact MRS enamel powder circuit aims for easeof-use, continuous and consistent enamel feed and little wear of parts. The injectors, pumps and recovery system are perfectly coordinated with one another and feature a wear-resistant design. A wide variety of fresh powder feed and sieving solutions are designed to meet your quality requirements.



## The heart of the enamel coating

High transfer efficiency, uniform enamel application, optimal penetration into any geometry, the Gema enamel powder guns represent the heart of the enamel coating process. The robust construction with wear resistant components is another highlight of the guns.

#### Here you control the coating

Do you want to save enamel? Do you insist on high user comfort combined with the highest coating quality? The versatile OptiFlex A2 control unit with integrated OptiStar gun controls enables easy access to all coating parameters at any time.

## Coating in every direction

The reciprocators and axes from Gema Switzerland cover all movements. No matter what configuration you need, whether a horizontal or vertical axis, an infeed or rotary axis, we have a solution for all your requirements. High precision synchronized axis ensure the best quality in inside coating applications.

# Enamel Powder recovery circuit



#### The overspray enamel is recovered by the filter unit directly integrated in the booth wall. The enamel returns to the booth floor where the squeegee unit is gently recovering it via the fluidized channels. Before returning to the mains hopper the enamel powder passes through a magnetic separator and a sieving machine.







#### We take your safety seriously

Think of the safety of your employees! Powder coating systems are subject to strict safety regulations. All our products and spare parts are developed and tested according to the highest international standards (PTB, CE, FM) and are subject to constant quality controls (ISO 9001:2000).

With Gema, you are sure you get the safest products, with no compromise.

## Take advantage of the Gema enamel coating solutions to power up your productivity!







#### Compact and space-saving design

The booth can be easily integrated into a broad variety of systems concepts!

#### Ideal handling of the enamel powder

The gentle and efficient recovery system prevents the deterioration of the recovered enamel powder and ensures its optimal usage.

#### Low maintenance cost

All the main components are made of long-life ceramic material. This significantly reduces the maintenance needs and costs.

#### Quality easy to achieve and reproducible time after time Our user friendly interface allows you to store your precious programs and to repeat perfect coating results at any time!

#### Enamel powder savings

Accurate powder delivery, optimal electrostatic charging, high transfer efficiency are the key to obtain uniform coating thickness and lower enamel consumption.

## The powder coating world of Gema



#### Gema Switzerland

## Your global partner for high quality powder coating

Take advantage of our expertise and experience from more than 40 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 Switzerland is part of Graco Inc. Our goal is to help our customers increase their productivity while creating attractive, long-lasting products. Our experts in the Finishing Group continually set new standards in the surface coating industry.





Gema Switzerland GmbH reserves the right to make technical modifications without notice. Illustrations in brochures may contain special options and do not necessarily correspond to the standard version. OptiCenter, MagicCenter, OptiSpeeder, MagicCompact, MagicCylinder, OptiFlex, OptiStar, OptiGun, OptiSelect, MagicControl, OptiCentrol and OptiFlow are trademarks of Gema Switzerland GmbH.

#### Gema Switzerland GmbH

Mövenstrasse 17 | 9015 St.Gallen | Switzerland T +41 71 313 83 00 | F +41 71 313 83 83 www.gemapowdercoating.com



