

Electrostatic System and Powder Feed Combined

A new powder management centre consists of a powder feed, a control unit and an electrostatic system. As a large control cabinet is not required, the powder centre takes up very little space. It also has simple operation, control and cleaning processes.

The operation area of the new powder management centre from Gema (OptiCenter All-in-One) has no hoses or quick-release connectors. The injector is located directly on the newly developed control unit (OptiStar All-in-One), which is why no pneumatic hoses are needed to connect the two components of the system. As a re-

sult, it takes up very little space and can be easily integrated into the powder management centre which can control up to 36 spray guns and supply them with powder. Because there is no need for a large control cabinet, the footprint of the new powder centre is much smaller than that of other similar models.

any anomalies in the powder flow which could lead to feed problems and reports the faults to the central control unit. The powder flow remains consistent across the entire bandwidth to give the best possible coating results. The reliable PCC (Precision Charge Control) function, which prevents powder overcharging, and the proven DVC (Digital Valve Control) function, which gives an accurate and reproducible powder output, also form part of the system.

The powder centre, the powder feed and the fully automatic colour change system can be operated and monitored from the enlarged 7" touch screen on the control unit. New icons have been added to make the control system clearer and more user friendly. Simple and intuitive on-screen guidance is provided for operators to help them manage the efficient colour change process, which includes bidirectional cleaning. The process is started from the control panel and runs without the need to change hoses or move mechanical components manually.

Perfect powder conditioning and efficient colour changes

The powder hopper is integrated into the closed powder circuit. It fluidises the powder perfectly and supplies it to the spray guns via the injectors. The hopper has an enlarged opening with a quick-release lid which gives a clear view of every corner to allow for better control while the system is in operation.

A continuously variable powder level detection system constantly monitors the

Injector and controls in one unit

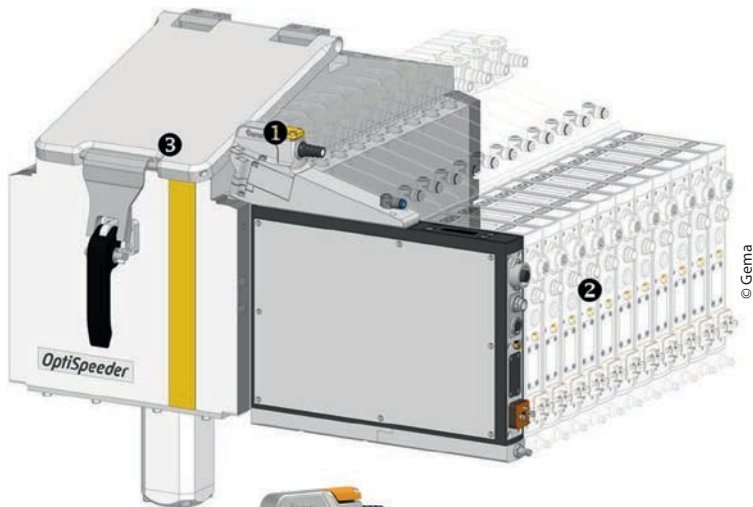
The (OptiFlow) injectors have a single-component cartridge design and form one unit with the control modules. They are integrated into the (OptiSpeeder) powder hopper. The new injectors provide a consistent powder flow over long periods and have only one wearing part, which reduces the cost of maintenance and repairs.

Combining the control unit and powder feed results in a highly efficient cleaning process and very short powder output response times. This allows the powder cloud to be controlled without any delay which in turn improves the coating quality and reduces powder consumption. These features make the new system ideal for applications where accurate gap control is required and for complex coating processes using robots.

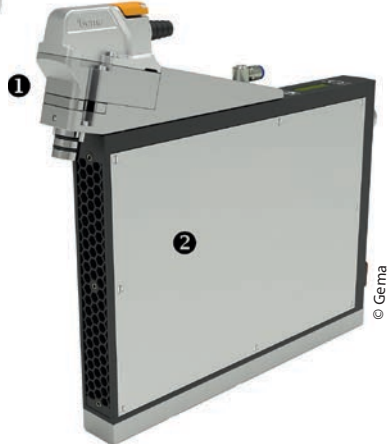
An integrated monitoring system automatically identifies



The new powder centre combines the powder feed, control unit and electrostatic system in a very small space.



The injector (1) is part of the control unit (2), which is directly mounted on the powder hopper (3). This significantly improves the response times for the powder output.



powder status and dispenses powder to the feed system. Even the tiniest quantities of powder for small production runs are detected and accurately dispensed. The short suction distances ensure that the powder flow is consistent and give the best possible coating results. The system switches automatically between fresh powder mode and recovery

mode without the need for the operator to move any hoses. The cleaning process is also fully automated. The operator can select one of the cleaning cycles from the touch screen. These include “Quality Clean” for contrasting colours, “Fast Clean” for colour changes within the same spectrum and “Custom Clean” for user-specific colour change programs. Gema also supplies an ultrasonic sieve as an optional extra for the powder hop-



The addition of new icons has made the control module very clear, user friendly and efficient.

per. The sieve oscillates to ensure that the powder is processed gently and is available in different mesh sizes.

Flexible design

With its new powder management centre, Gema has succeeded in combining the electrostatic system, the control unit and the powder feed in one compact system. It provides fast and efficient colour changes, consistent coating results and clean working conditions. In addition, it offers intuitive operation and easy maintenance. The modular platform enables Gema to supply different variants for internal and external fresh powder feeding from a standard cone to a fluidised 100-litre powder hopper or a BigBag system. //



The compact layout of the control modules allows up to 36 spray guns to be supplied from one hopper.

Contact

Gema Switzerland GmbH
 CH-St. Gallen, Switzerland
 Tel. +41 71 313 83 00
 info@gema.eu.com
 www.gemapowdercoating.com