

Magic Cylinder®: The economic quick color change system without cleaning mechanism for automatic powder coating systems.

MAGIC CYLINDER®

ECONOMIC QUICK COLOR CHANGES

The quick color change system with an excellent price/performance relationship for automatic coating plants



- quick, efficient, safe, and easy cleaning
- optimum exhaust
- low powder volume in the powder circuit
- directly integrated manual coating stations
- minimum powder depositing on the booth walls
- no cleaning mechanism
- available in different customized versions



Different versions, adapted to your requirements

Comfortable manual coating

Large variety of system versions

The Magic Cylinder quick color change system can be installed in the most diverse variations. Completely adapted to your requirements and space conditions. Whether in line, oblique, with or without a pit, at ground level or with a pedestal... We will gladly advise you according to your specific requirements. The Magic Cylinder is also excellently suited for the use of coating robots. Different manual coating stations can also be selected, which are optimally integrated into the concept and can be used for precoating or touch-up coating (are also selectable in combination).

The quick color change

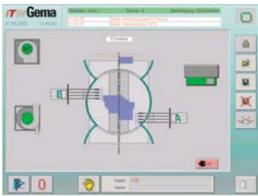
The Magic Cylinder is an economic and cleaning-friendly quick color change system for automatic powder coating systems. Its principal characteristic is a compact, cylindrical plastic booth, which operates without an expensive cleaning mechanism. The vertical arrangement of the powder guns (up to 4 gun slots on each side) enables an approximately 15% increased coating efficiency. The powder center guarantees the highest quality color change. After a short acclimatization period, color changes can already be carried out in very short time.



Quick, easy and efficient cleaning of the system

High degree of automation

You are intuitively led through the operation of the Magic Cylinder quick color change system by modern control units and comfortable user interfaces. Each system is specifically designed for you, the customer, and configured in accordance with your special work parameters. Thus, you get your own customized quick color change system.



Powder saving and comfortable operation

You want to save powder. In addition, you also want high operating comfort. And that with the highest coating quality. With the OptiTronic® Powder Gun Control unit we offer everything to you together. Then this control unit combines all the benefits in one:

- reproducible coating results at all times
- reduction of intermediate coating thickness
- constant powder charging conditions
- 255 storable coating programs
- individually programmable coating parameters
- control system expandable to different levels
- optional CANBus serial interface



High coating efficiency

Due to the vertical pistol arrangement in the Magic Cylinder an extremely high coating efficiency is achieved. Four gun slots can be fitted on each side. The number of powder guns and their arrangement are determined in close cooperation with you. In addition, at ITW Gema AG a well-equipped trials laboratory is available, in which workpiece coating tests can be run under real time conditions.



1

The round plastic booth with central exhaust and optional pre-coating and touch-up coating stations. The design guarantees that a minimum of powder remains adhered to the walls. This shortens the cleaning time considerably! No other powder coating booth offers this efficiency!

- lowest powder adhesion on the booth walls
- no powder expelled
- up to 4 gun slots per side
- easiest quick cleaning without entering the booth
- no movement necessary; everything within reach and visible
- 1 x each, pre-coating and touch-up coating station
- multiple color system: classically, with Monocyclone
- single color system: direct exhaust through a filter system



2

The key to a quick and clean color change is the compact powder center. Equipped with its own exhaust air system, it offers a maximum of convenient operation!

- designed for quick color changes
- fluidized container and vibration table
- separate hose groups for light/dark colors
- application with or without sieves (double or ultrasonic sieve)
- optional fresh powder supply from a carton or from a "Big Bag"
- optional automatic return of waste powder to the bagging station



3

Simple operation, optimum coating results, and powder savings. The comfortable OptiMatic control system fulfills these high demands well. The OptiTronic® powder gun control unit offers the following benefits:

- reproducible coating results at all times
- reduction of the intermediate coating thickness
- constant powder charging conditions
- 255 storable coating programs
- individually programmable coating parameters
- control system expandable to different levels
- optional CANBus serial interface

The control units can, naturally, also be equipped with ultramodern PLC controls. Thus, a maximum of operating comfort is achieved. All parameters are controlled through a contact display (Touch screen), and depending on the configuration, the whole control sequence can be configured and controlled through an integrated PC control.



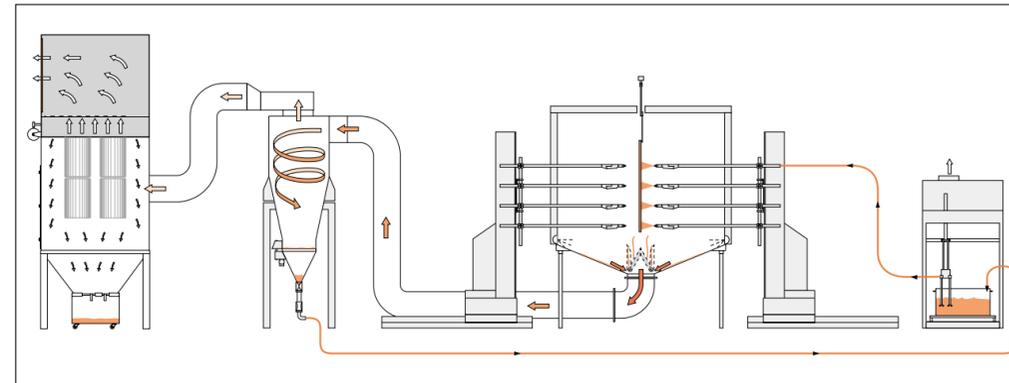
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The powder is fluidized directly in the container or in the powder box. Level-controlled injectors transport the powder through two separate hoses, for light and dark colors, to the powder guns.

The overspray is uniformly sucked up by a central exhaust below the workpieces. The powder arrives at the Cyclone separator through a smooth-walled duct. The powder is separated from the exhaust air in the Cyclone, and is recovered by an integrated sieve and conveyed by means of a Dense Phase Conveyor to the container and returned into the circuit. The finest particles in the exhaust air are collected in the After Filter in a waste container which can be easily handled. The exhaust air cleaned this way can be fed directly back into the workshop.



4

An effective exhaust air unit guarantees optimum powder suction. Our filter units are distinguished by their extreme longevity and the Cyclones are convincing in their very high degree of separation.

- optimum exhaust air flow
- smooth, aerodynamically clean air suction ducts
- favourable from the energy aspect
- plate filters or cartridge filters with rotary jet cleaning



5

The heart of the powder coating system are our modern, high-efficiency powder guns. They guarantee the best coating results and uniform powder coating.

- constant powder output
- patented, integrated electrode rinsing
- SuperCorona® against "orange peel" finish
- easy to service and long-life
- manual powder guns with integrated remote control
- automatic cleaning of the automatic powder guns



6

Whether long or short stroke: quiet running and high load carrying ability distinguish the ITW Gema reciprocator equipment. The positioning and stroke lengths of the reciprocator equipment are automatically controlled via an object recognition unit. Versatile programming possibilities are available on the user-friendly control unit.

- available as single and multi-axes versions
- positioning through an object recognition unit
- all axes freely programmable by means of the CRO3 control unit
- CANBus technology integrated in the control unit
- maintenance-free three-phase current drive with toothed belts
- narrow reciprocator column enables the space-saving arrangement of the powder guns

