

## CYMOD™ INTEGRATED CYCLONE POWDER BOOTH SYSTEM

### THE EFFICIENCY OF A CARTRIDGE BOOTH THE FLEXIBILITY OF A CYCLONE BOOTH



A Wagner Powder Booth System is designed to be efficient, durable and affordable. The CyMod™ System is a self-contained system which is custom-engineered to improve operator performance and productivity while enhancing coating quality.

The CyMod™ System makes it possible for companies to install powder equipment with a collection system flexible enough to adapt to any future needs. Previously, users had to choose between a cartridge or a conventional cyclone booth. This dilemma is solved with the innovative CyMod™ System, which can be outfitted with either type of powder recovery process. Users can configure the system to satisfy their powder recovery requirements now and in the future.

**The CyMod™ Integrated Powder Booth System** is an innovative design which combines the efficiency and compactness of a cartridge filter booth with the flexibility of a cyclone booth. The CyMod™ System is especially designed for the custom coater using one or two major colors and a multitude of low volume and special colors which can be recycled. The most efficient usage of high volume colors is with cartridge filter collectors for each color. These roll-away dedicated color Quick-Change™ Collectors allow for nearly 100% usage of the coating and contamination-free color change since there is no duct work to clean. The Quick-Change™ Collector recycles the powder directly to the integral gun feed hopper with the shortest powder path in the industry.

#### BOOTH DESIGN FEATURES

##### Booth Enclosure

Available in either stainless steel or non-metallic polymer; both types include a stainless steel floor

##### Operator Spray Station

2'-6" W x 6'-0" H opening

##### Automatic Gun Spray Station

Two (2) slots per side, polypropylene vestibule

##### Operator Platforms

Staircase and safety handrails

##### Fan Plenum Assembly

Fan housing and final filters

##### Integrated Booth Control Panel

480 V/3 Ph/60 Hz wiring

##### Booth Fluorescent Fixtures

Four (4) wall-mounted

##### Booth Pneumatic System

Air valves and manifold pre-piped

##### Booth Perimeter Manifold

¼" IPS compressed air taps

##### Blow-Off Gun Assembly

Spray stations and collector

##### Booth Interlocks

UV/IR system, automatic guns and conveyor

##### Conveyor Emergency Stop

Located by the manual station

#### EQUIPMENT PRE-ASSEMBLY

##### Paint

White epoxy on non-stainless, yellow on platforms

##### Factory Wiring

All motors, control panels and switches

##### Factory Air Piping

Pulse system, manifolds and controls

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## POWDER RECYCLING WITH THE CYMOD™ POWDER BOOTH

The powder is sprayed into the booth enclosure by either manual or automatic spray equipment. As the air is drawn through the operator and work openings, it carries the powder overspray horizontally inside the enclosure, into the powder recovery system.



**Quick-Change™ Cartridge Collector Module**

In **Collector Mode**, the powder is drawn through the air and distribution baffles and deposited on the cartridge filter and is automatically dislodged by a reverse-pulse of compressed air. This momentary snap of air allows the powder to fall into the single, removable hopper under the cartridges, where it mixes with the fluidized virgin and recycled powder. This unique, closed-loop powder recovery system design ensures a consistent blend of powder deposition throughout the operation. The virgin make-up powder is loaded into the collector through the load chute above the hopper. The chute also allows for the inspection of the powder level and fluidization in the hopper. The integral hopper can be outfitted with either the gun feed pumps or recycle pumps for transferring the recycle powder the external gun feed hopper located at the rear of the collector when the rotary screener is used.

In **Cyclone Mode**, the powder over spray is drawn toward the collector and can be diverted in two distinct paths: directly into the scrap collector module, where all powder overspray is scrapped, or through a very short duct into the cyclone module, where all the powder is separated from the air stream for reuse. The recycled powder is collected in a special powder receiver under the cyclone where it is continuously transferred to the gun feed hopper. The exhaust air and powder "fines" from the cyclone are ducted to the scrap collector module for further filtering. The scrap collector module is attached to the booth similarly to a quick-change collector and has cartridge filters which, when pulsed, release the scrap powder into the internal bin. This powder is collected for proper disposal.

The clean air is drawn through the volume control damper and into the fan inlet. The fan discharges the air through the final filters back into the plant.

Wagner Systems' equipment is designed to work in an industrial environment. Wagner Systems does not specify any particular type of powder, formulation or particle distribution. However, cyclone equipment is a particle classifier and will have a recycling efficiency which is dependent on particle size. Our experience with the Wagner Systems' cartridge filters is that they work with any standard commercially available powder.



**CyMod™ Cyclone Module separates for ultra fast color changes**

## JUST IN TIME (JIT) FINISHING

The **CyMod™ Cyclone Module** gives the custom coater the flexibility of changing color in the middle of a color run to spray another color and then return to the previous color without cleaning the cyclone or duct work. While one operator is loading the second color and cleaning the powder guns, the other operator quickly flushes the overspray inside the spray enclosure into the cyclone inlet and changes the booth airflow. This minimizes the loss of recycled powder of the first color. After spraying the second color, the guns are changed back to the original color, the second color overspray is flushed out, and the booth is ready to resume recycling the original color.

## ROTARY SCREENER OPTION

The booth can be equipped with the **Rotary Screener System** which filters and conditions the recycled/virgin powder mixture. The scrap powder is collected in a bucket for disposal. The sieve is continually fed by transfer pumps at the recycle/virgin powder make-up hopper(s) when the Cyclone Module is used.

A dedicated collector can be equipped with a dedicated screener for a particular high volume color or when the quality and consistency of the coating is required. The screener can be retrofitted at any time.

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