



**DIAMOND<sup>TM</sup>SERIES**  
COATING BOOTH

***The World Leader in  
Powder Coating Systems***



***DIAMOND<sup>TM</sup> Series Coating Booth***

The efficient design of our DIAMOND Series coating booth makes the unit ready to install and begin production. No other side-draft cartridge collection booth is as easy to operate, while giving you exceptional performance with each and every application.

**TW** **Gema**

# Superior By All Measures

## 1 Simple to Install

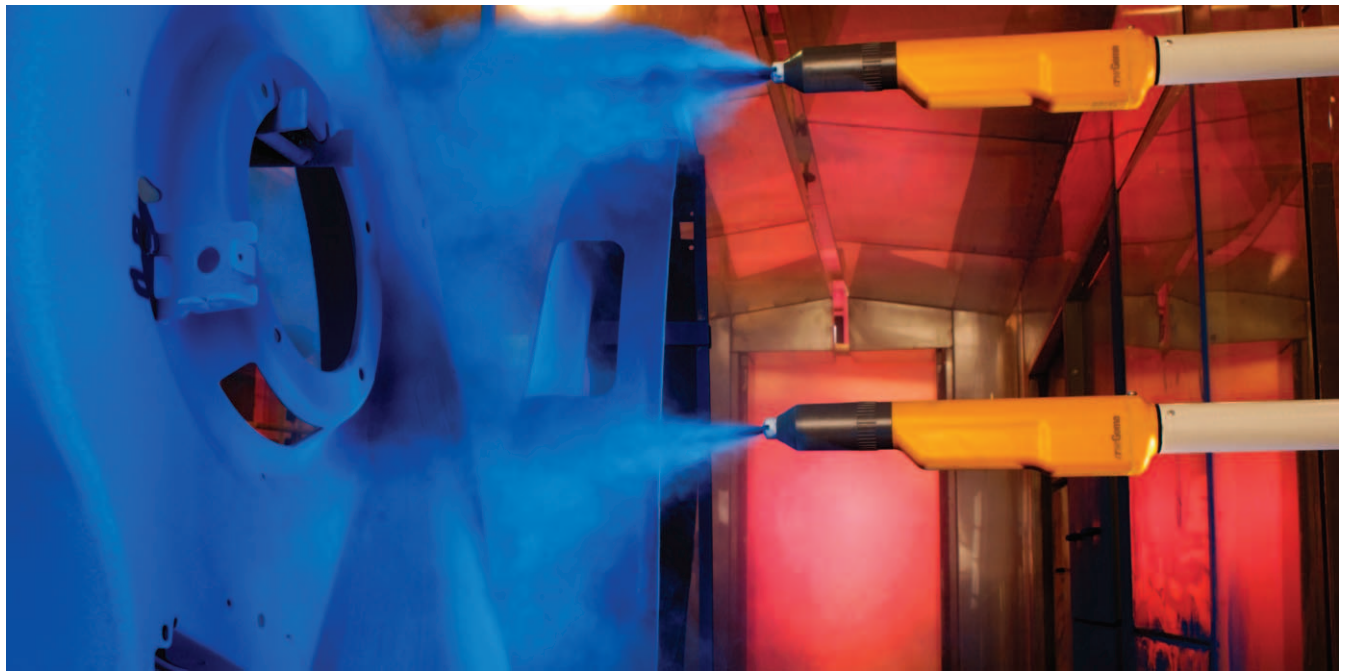
- DIAMOND™ Series coating booths feature plug-and-play installation with a fully **prewired and preplumbed** booth base, which is shipped **preassembled** in most cases.
- Bolted construction makes the booth upper structure easy to assemble and modify.
- **Installation time is reduced** by up to 50%, and **costs reduced** by as much as 80%, compared to other unassembled booths.
- All power and interlock connections are made to one location for simplified installation.

## 2 Easy to Use

- **Polycarbonate** is an extremely durable plastic material that resists abrasion and scratching. The hard, slick surface of the DIAMOND Series booth stays smooth, clear, and **easy to clean**.
- The cartridge collector assembly uses horizontally mounted filters easily accessed from outside the unit.
- **Side-draft cartridge** modules are interchangeable for fast and easy color changes.
- The mobile cartridge collector assembly features a **single-point clamping** device to ensure a tight fit. Minimal effort is required by the operator to change between collector assemblies during color change.
- When a fast color change is needed, two or more DIAMOND Series booths can be installed in a roll on/off format.
- Location of ancillary reclaim equipment is based on application need, not collector location.
- Collector opening is at floor level for **easy removal of powder** from the booth floor and for transfer back to the reclaim assembly.



All units are covered by ITW Gema's unique 5-year warranty.



## 3 Efficient Design

- Location of automatic gun slots, manual openings, the collector module, and the aerodynamic design of the vestibules all contribute to **maximize powder transfer efficiency**.
- Clear polycarbonate panels provide the **best possible lighting** for product application.
- **Complete visibility** of spray operation is available at all times, allowing visual monitoring of both manual and automatic gun performance.
- Pressure drops are constantly monitored across the filters to maintain the utmost operating efficiency.
- Cabin structure is customized to meet specific application needs with our standard combination of clear and stainless-steel structure, or the optional all-stainless-steel configuration.
- **Compact floor space design** of collection equipment.
- All DIAMOND Series booth bases are designed to integrate into most standard systems without conveyor elevation changes from the pretreatment system.
- The center design incorporates air flow vestibules in each automatic gun slot, thus channeling the airflow around the gun and ensuring **containment of oversprayed powder**.
- Side-draft collection unit provides **uniform airflow** while allowing operator to visually inspect the level of powder in the bottom of the collector.

- Direct drive fan provides uniform air volume performance over the full life of the cartridges.
- **Booth ranks as quietest** on the market (74 db).
- Low pressure, high volume back-pulse **reduces noise** and improves cartridge life.

## 4 Outstanding Performance

- Cartridge filter design maximizes both life and powder recovery performance of the filters. It provides **maximum filtration** at the lowest possible pressure drop.
- **Uniform disbursement of recovery air** recycled through highly efficient safety filters under the booth **prevents drafts** that can compromise the environment.
- Unique filter eliminates need for “seasoning” at startup.
- Polycarbonate material reduces the amount of powder build-up on booth walls, allowing more powder to be attracted to the part, thus minimizing clean up.
- Aerodynamic side-draft design creates a **superior application zone** for repeatable performance.
- Open-face collector promotes uniform air flow and more consistent application performance.
- Efficient design features **greater than 95% material utilization**.

# DIAMOND™ Series Coating Booth System Operation

Charged powder transfers from the manual or automatic gun to the part.

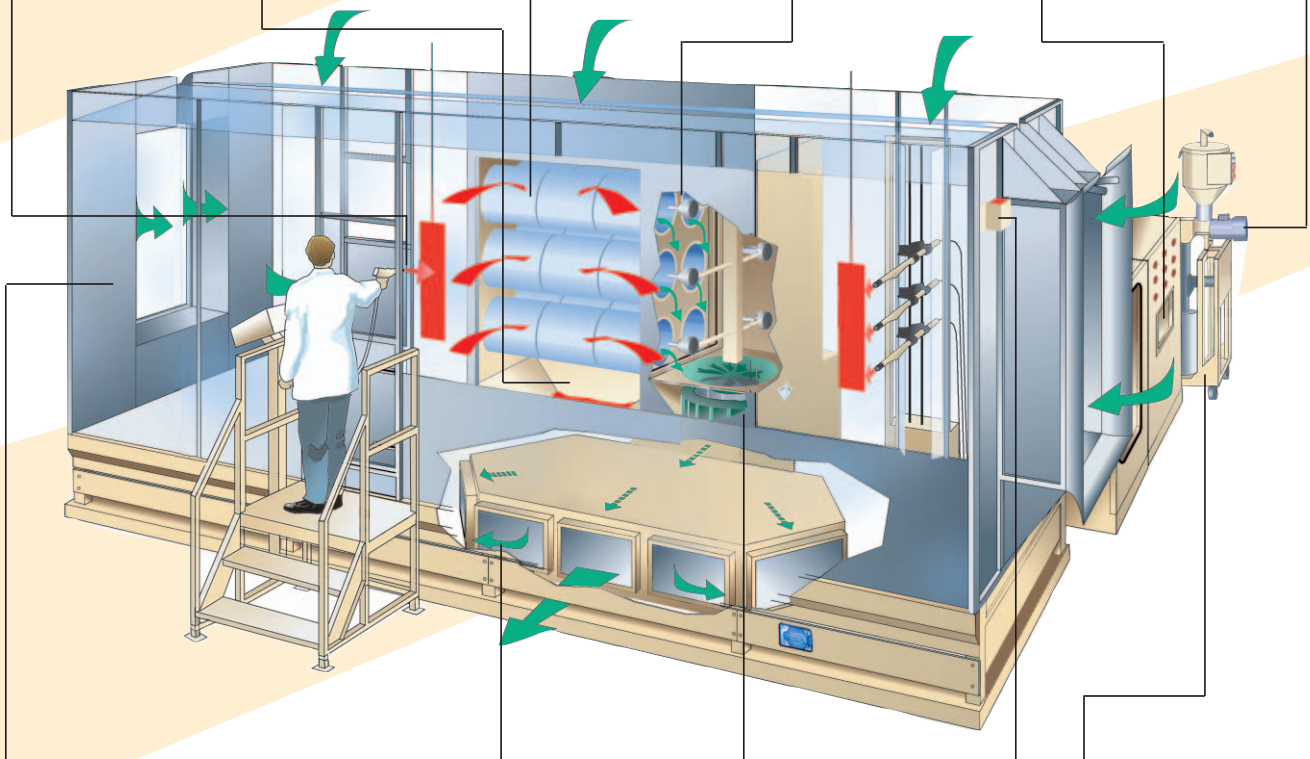
The powder drops to the base of the collector module where it is fluidized and transferred back to the feed hopper for reuse.

Containment air is pulled through the cartridge filters, separating the oversprayed powder from the air flow.

Powder on the surface of the filters is knocked free by a preprogrammed, sequential back-pulse of compressed air.

Optional AutoTracker™ 2.0 programmable logic control can be added to improve application performance.

Optional sieving devices can be used to screen fresh and recycled powder before being sprayed.



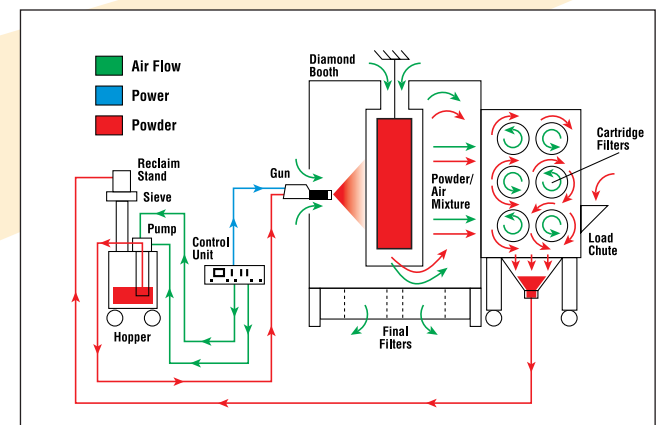
Powder utilization through the system may be greater than 95% with an excellent distribution of powder particle size throughout the cycle.

The clean air passes through a final filter before being returned to the workplace, eliminating the need for air makeup.

The exhaust fan pulls air into the booth enclosure to contain the powder.

To meet the National Fire Protection Association (NFPA) Guidelines for Safety, the DIAMOND Series booth comes equipped with a flame detection unit for automatic gun applications.

The feed hopper delivers both new and reclaimed powder to the guns.



The DIAMOND Series coating booth is compatible with both ITW Gema's automatic and manual guns.

## What To Look For In Your Next Powder Coating System

- Optimal system design to ensure powder containment while meeting industry safety standards
- Maximum recovery efficiency
- Multiple color capabilities
- Easy cleaning
- All filter media accessible and easily replaced
- Minimal maintenance required
- Versatile design to meet changing production requirements
- Optimum use of plant floor space
- Minimal plant air and energy requirements
- Safe operational noise levels

## Why Should I Buy A DIAMOND™ Series Coating Booth?

- For recovery applications with up to 4 colors
- For color-change frequency ranging from a few times daily to monthly
- For high material utilization efficiency
- For spray-to-waste applications with unlimited colors

## Service and Support

In addition to our unique 5-year warranty, our products are supported by a dedicated service team. ServiceNet<sup>SM</sup> is our 24-hour, nationwide network of engineers and factory-trained distributors ready to provide you with a high level of local support. ServiceNet offers:

- Factory-direct, field-service staff for emergency situations
- Repair center in Indianapolis, Indiana
- System installation and start-up assistance
- Product and/or powder testing
- R&D lab for very specialized application testing
- Operator training in Indianapolis, Indiana (single or multi-day programs available)
- Field-training programs conducted by the Regional Technical Engineer

### Number of Colors

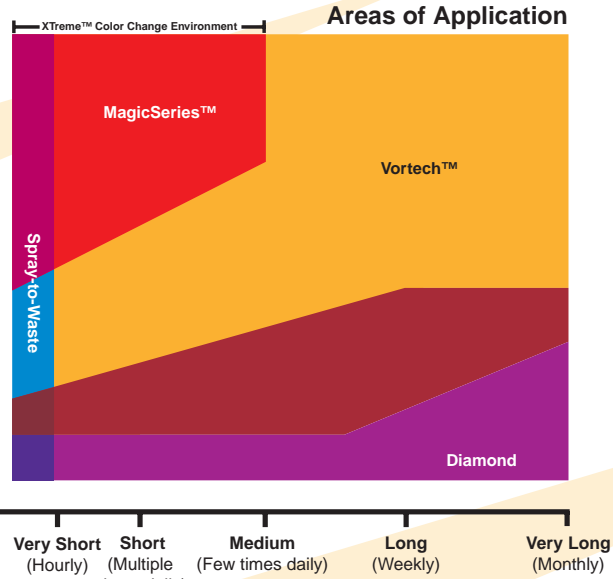
Very High  
(11 or more colors)

High  
(7 - 10 colors)

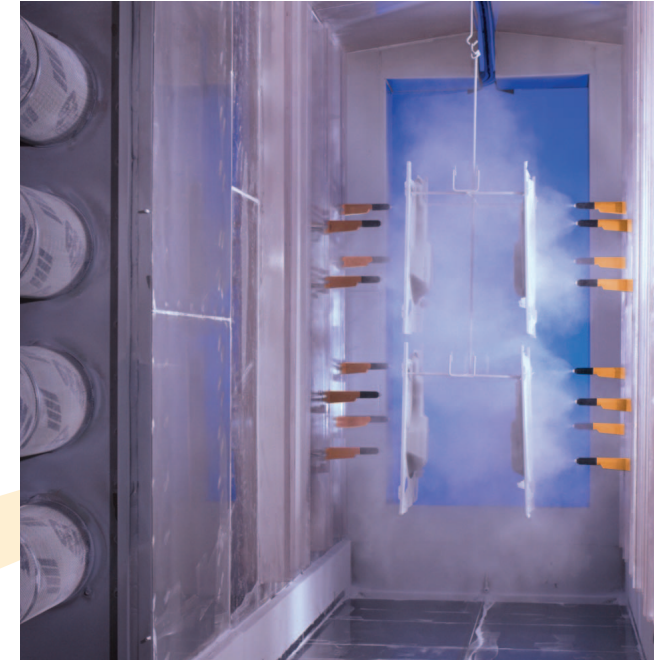
Medium  
(5 - 6 colors)

Few  
(2 - 4 colors)

1 color



### Color Change Intervals



The DIAMOND Series coating booth is versatile, easy to use, efficient, and simple to install.



All ITW Gema products are covered by ServiceNet



Member of The Powder Coating Institute



Member of The Chemical Coaters Association International

### ITW Gema

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