

Deimco Powder Finishing Systems

Deimco Finishing Equipment has been a leading provider of custom engineered finishing systems to industry since 1983. We take great pride in designing/manufacturing application-specific engineered finishing solutions for metal, plastic, and wood products. Deimco manufactures a broad range of powder finishing systems.

In-Line Powder Reclaim Booths



Deimco's **"Whisper Quiet" In-Line Powder Reclaim Booths** are the quietest on the market. The booths provide a complete in-line spray containment enclosure with primary and secondary air filtration. All booths have a PLC in the self contained electrical panel making automatic gun controls affordable for your present or future needs. Roll-off booths are available.

Lean Cell Systems



Deimco's **Overhead Powder Cell and Chain-on-Edge Powder Cell** are complimentary custom turnkey systems. Each is ideal for customers employing lean manufacturing fundamentals and single piece flow production. Lean cells optimize floorspace, lower manpower requirements, and reduce operating costs while simultaneously improving finish quality and achieving high output demands.

PWI Series Booths



Deimco's **PWI Series Booths** come in a wide variety of sizes and configurations in both batch type and conveyerized styles. All provide a complete spray containment enclosure featuring a fixed collector module. Batch booths may also be configured with or without a conveyor slot.

Custom Hybrid In-Line Booths



Deimco's **Custom Hybrid In-Line Booth** provides customers with automatic and manual application functions in a single booth, keeping within their available footprint and budget. It is especially useful when finishing a wide mix of part profiles that have a significant percentage of products with deep parts or complex geometries that must be hand sprayed.

Deimco In-Line Reclaim Installations



Above: External view of custom two-level booth eliminating need for work platforms

At right:

Interior view of MD8200 booth illustrating conveyor height two-level transition



Shure Manufacturing Corporation

Shure Manufacturing Corporation engineers and manufactures high quality, professional steel fabricated products for various industries. Shure has been a major supplier of quality shop furniture for automotive service/repair and petroleum industries since the 1940s. Shure's state-of-the-art 95,000+ square foot manufacturing facility is centrally located in Washington, Missouri, just west of St. Louis. Shure's manufacturing facility features a high tech powder paint line that required some unique solutions.

To insure the best possible finish, Shure's management wanted a two-level powder booth. This would allow the painters the opportunity to coat the bottom of the large tool boxes as the part entered the booth, and then coat the top of the boxes as they reached the opposite end of the booth. This required making a conveyor height transition within the length of the booth.

Deimco engineers worked hand-in-hand with Shure Manufacturing to provide a unique two-level booth. Air-flow is balanced throughout the booth to allow uniform coating of the entire part without the need for ladders or work platforms inside the booth itself.

Digger Specialties

Digger Specialties had been researching different powder coating companies to help with an expansion in their aluminum fencing and gating product lines. Digger's engineers were investigating powder coating methods that would meet rigorous AAMA specifications while economically and efficiently coating their products. Digger's engineers were further challenged by their need to powder coat 10,000 widely varying parts per day, with the additional potential for growth and diversification of coatings. Digger Specialties selected Deimco Finishing Equipment to design and build the powder coating system solution that would meet all requirements.

While the parts were not wide, they were very tall and possessed a square profile which made wrap around effects of the powder paint more critical. Part specific gun settings were used to optimize wrap effects. A total of 8 automatic electrostatic powder guns mounted on 2 Deimco Radial Y Oscillators (4 guns and 1 oscillator on each side of the booth) with zoned gun controls achieved the desired finish properties, transfer efficiencies, and process repeatability.

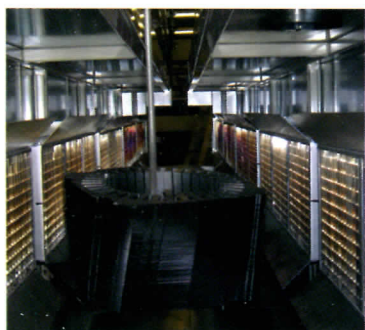
Deimco's Direct Drive Whisper Quiet MD powder booth systems provide a complete in-line spray containment enclosure with primary and secondary air filtration. The booth has self-contained electrical and pneumatic panels, plus separate detachable filter modules with cart mounted reclaim sieves and automatic feed hopper reclaim level controls. These design features fulfilled Digger Specialties' needs for a high-production superior finish product.



Deimco Overhead Powder Cell Installations



*Above:
Motor stator manually
coated as it rotates
through MD1600 booth*



*At Left:
150 pound part cured
in Deimco IR oven*

Danaher Motion

Lean finishing cells exhibit extreme functionality in a compact footprint. The lean cells can flexibly finish a wide variety of parts within a product family and can efficiently finish either high or low part volumes. Right sized lean finishing cells occupy a small floorspace and their acquisition and operating costs are a fraction of traditional batch or in-line finishing systems.

Danaher Motion came to Deimco Finishing Equipment because their breadth of part sizes provided a real challenge. They sought to introduce powder coatings to their motor stators in a new facility in China. The individual part weights varied from less than 20 pounds to more than 150 pounds--making powder curing and part cooling in a compact cell system at the required takt times difficult.

Deimco engineered the solution for Danaher that accomplished these objectives. Deimco tested parts in their lab prior to finalization of the system quote which validated the cure and cooling system parameters.

The entire system was assembled and operated in Deimco's facility prior to shipping making re-assembly in Danaher's China facility quick and trouble free.

Whirltronics Inc.

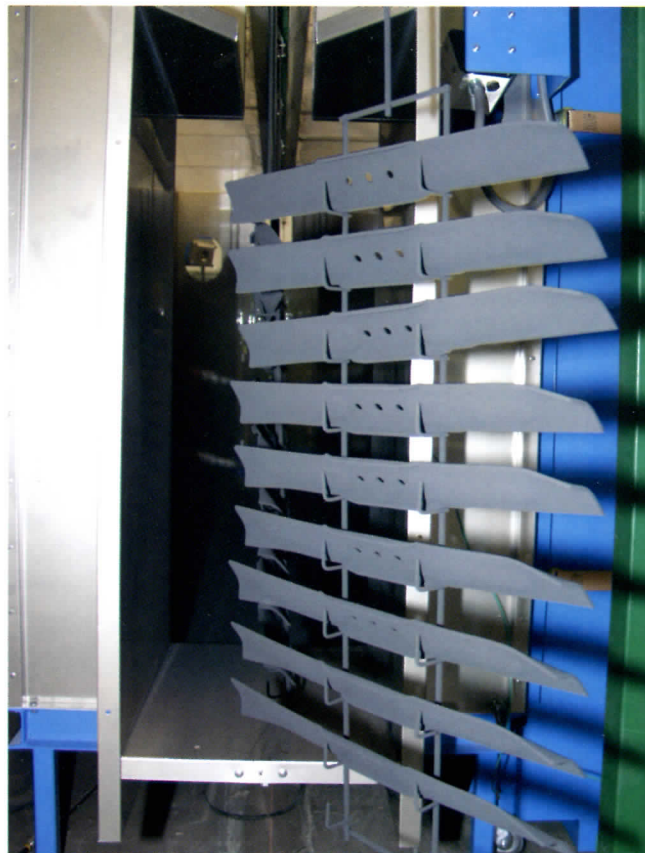
Whirltronics, Inc. is a manufacturer of 4 million heat treated lawn mower blades per year. They recently instituted lean manufacturing and sought an upgrade to their old powder coating line. Three suppliers were invited to offer quotes for a new powder system. Deimco Finishing Equipment was the only supplier able to design the system to fit in the small target area in the plant. Whirltronics' management states "The new line is shoehorned into a 950 square foot area that wasn't being used. Deimco was able to get the line in there and make everything operational."

The turnkey powder cell system contains a Whisper Quiet MD 2700 booth, 4 automatic electrostatic guns, 2 radial Y oscillators, UL listed zoned gun controls, and Deimco's IR powder cure oven.

By installing the cell system, Whirltronics dramatically improved their environment as powder is now contained. Other operational efficiencies included:

- * 30% reduction in powder consumption
- * 15 to 20% reduction in electrical consumption
- * 10 to 12% increased throughput capacity
- * virtual elimination of rework

Whirltronics' management summarizes the project, "Now there is a better atmosphere and air quality for all the employees. We're using less paint now and considerably less energy with this new line."



Deimco Chain-on-Edge Cell Installations



Parker Hannifin Corporation

Deimco Finishing Equipment was contacted by Parker Hannifin Corporation's Hydraulic Filter Division to provide a turnkey powder coating system to finish their aluminum hydraulic filter bowls and heads. Parker employs lean manufacturing techniques and wanted an efficient compact solution with single piece flow.

The customer was invited to conduct a trial in Deimco's demonstration lab. The customer's maximum part window was up to 8" in diameter and 22" in height with a maximum weight of 10 pounds. The chain-on-edge powder cell was selected as a result of successful trials.

The customized turnkey cellular system incorporates Deimco's chain-on-edge style conveyor, Deimco's CP1200 cartridge powder reclaim collector, [2] automatic electrostatic powder guns, and Deimco's integral infrared curing oven.

Cleaned parts are loaded onto the variable speed conveyor. As the conveyor spindles reach the powder collector, Deimco's variable speed part rotator spins the parts. Deimco's upline gun control automatically triggers the electrostatic guns individually as the hydraulic filter components are presented. The uniformly coated parts are cured in Deimco's IR curing oven, zoned with independent SCR controls. Cured parts are cooled using heavy-duty industrial fans before being unloaded.

OTHER CHAIN-ON-EDGE APPLICATIONS



Above: Custom finishing cell designed for casing and line coupling manufacturers. Capable of handling casings up to 14-3/8" outer diameter and up to 70 pounds each. (Liquid cell)



Above: Large part liquid chain-on-edge cell for finishing electrical components.

Deimco's large part chain-on-edge systems are designed to meet the toughest challenges from heavy parts to larger physical sizes. The large parts chain-on-edge system can operate as a continuous flow conveyor or an indexing conveyor, providing maximum versatility.

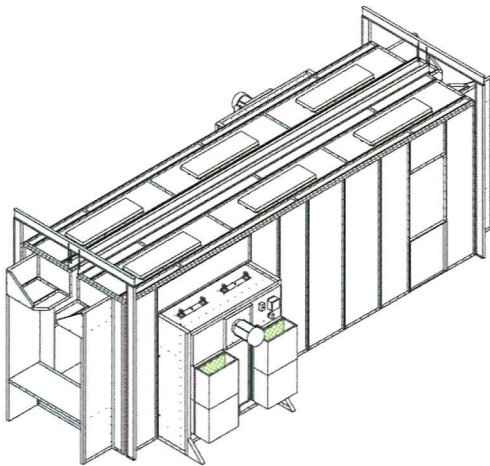
Deimco's comprehensive line of cell systems, for both powder and liquid coatings, are all tailor made to fit your production requirements. As with everything Deimco builds, each system is assembled and operated on our floor prior to shipping.

Deimco Batch Booths

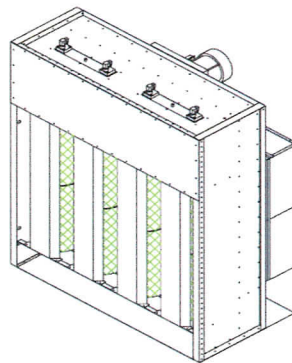


3K/4K/5K FEATURES

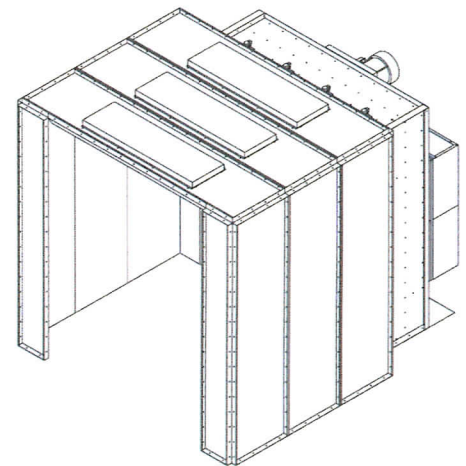
- Slim space-saving collectors in 3000/4000/5000 CFM increments
- Pre-punched panels for easy assembly
- UL labeled electrical panel with automatic and manual purge
- Rear access to final filters for easy servicing
- Available in several collector configurations (see examples below)



In-Line Collector Arrangement



Stand-Alone Module or Module Combinations



Back Collector Arrangement

Deimco Compact Powder Booths

Deimco's compact booths provide an economical solution for coating small parts in a wide variety of situations in a very small footprint.

- Gun cleaning stations
- Lab booths
- Special color booths
- Industrial work cells

Each booth is self-contained and features a powder accumulation container, final filter, and back pulse filter purge.



Deimco Powder Peripherals

Stainless Powder Hoppers



- Easy clamp-on castor base
- Large quick fill lid
- Optional self-contained air controls
- Pre-drilled pump mounting holes
- Available in 50/100/200 lb
- High and low level powder control available

Rotary Sieve System



- High volume powder receiver with vent assist
- Sturdy powder coated castor base
- Self-contained control system with air interlocks
- Cart or filter module mounted system

Pneumatic Reciprocators



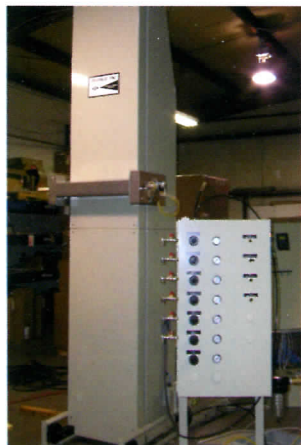
- Vertical or horizontal mounting available
- Speed from 40-160 fpm
- Adjustable stroke length from 4" to specified max
- Fingertip speed and stroke controls during operation
- Portable

Radial "Y" Gun Mover



- Pivots guns continually in 30 degree arcs
- Reduces banding compared to fixed guns
- Improves film build consistency
- Gun angling directs powder into complex geometries
- Increases "Finish Window" by 100% over fixed mount guns
- Fingertip speed control

HD Electric Reciprocators



- Vertical or horizontal mounting available
- Speed from 50-250 fpm
- Stroke length from 1 to 14 feet
- Capable of carrying workloads exceeding 100 lbs

Electrical Upline Gun Controls



- Custom gun controls to address any application
- Guns individually controllable
- No limitation on number of guns or control parameters
- Preprogrammed prior to shipment



A Company of SHI R² Solutions, Inc.

DEIMCO FINISHING EQUIPMENT

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