

DESIGN ENGINEERING

*s e r v i c e s*



OUR COATINGS IMPROVE YOUR PRODUCTS.  
OUR PEOPLE IMPROVE YOUR PROCESS.



OPTIMIZE MATERIAL AND ENERGY USE.  
OPTIMIZE SAFETY AND PRODUCTIVITY.

MAXIMIZE EFFICIENCY.  
MINIMIZE COST AND LABOR.

In addition to providing the best product finishing technology, we give you the tools and processes to put that technology to the fullest use. The Sherwin-Williams Product Finishes Design Engineering Group can create a custom finishing line solution for qualified customers – whether you need to streamline, upgrade, or design a new turn-key solution.

### **For Existing Systems**

We do more than supply materials and consultations. We objectively assess not only the technical aspects of your finishing line, but the human factors that influence your process and business objectives.

- Complete finishing line audits to identify efficiencies and sustainability opportunities
- Assist in meeting safety regulations
- Perform line audits to improve overall system performance
- Process/Coatings/Energy Costs – Computer program designed to cover various coatings and coatings processes

### **For New Systems**

Using your goals as our guide, we will create a customized and comprehensive finishing system that combines the best technology with a people-oriented focus on motivation, safety, productivity, and sustainability.

- Assist in overall design and engineering logistics
- Design parameters for various liquid and powder systems
- Determine logistics for liquid to powder conversion
- Define stain and paint kitchen requirements
- Design dip, storage, and electrodeposition tanks

### **Other Services**

The Sherwin-Williams Product Finishes Design Engineering Group does not sell equipment or time-management studies. We work with you to bring innovative thinking and the latest technology to your product's finish.

- Set up, conduct, and analyze coating application transfer efficiency
- Information on EPA regulations, hangar cleaning, robotics, spray booth airflow analysis, complete computer aided drafting and finite element analysis
- Design experiments and define process parameters for any coating application
- Create handbooks with design parameters for bulk storage tanks, proportioning equipment, and Sherwin-Williams color delivery systems
- Design cleaning methods for conveyors and paint fixtures
- Minimize "Faraday cage" effects
- Determine reciprocator speeds



## A COMPLETE SOLUTION... OR AN IMPROVEMENT IN ANY PART OF THE PROCESS...

From a single element to an entire system, the Sherwin-Williams Product Finishes Design Engineering Group can add quality and efficiency to any finishing line. Following is a top-to-bottom overview of our value-added services, any one of which can make your line operate more smoothly and efficiently.

**Coating Selection** – We perform product finishes evaluations in our state-of-the-art application lab to ensure you'll get the proper coating for proper performance on your line.

**Surface Preparation** – We help identify surface soils and recommend cleaning methods, as well as which conversion coating is needed to improve intercoat adhesion and corrosion resistance.

**Application Method** – We analyze your production needs to determine the most efficient application method for your product using liquid or powder coatings. We define process parameters and test them in our state-of-the-art application lab to ensure they will work on your line.

**Equipment Selection/Project Management** – We recommend finishing equipment once an application method is selected. We provide designs and layouts custom-tailored to your production needs using the latest CAD systems. We also manage the project from the definition stage through final installation.

**Production Analysis** – Based on your production schedule for a new product, we will define the process required to meet your goals. We will also audit your existing line to identify bottlenecks and determine methods for increasing production with minimal equipment upgrades.

**Material Handling** – We define the most efficient method for transporting products from unfinished to finished. We also define optimal storage conditions for your finishes, ensuring maximum usability and shelf life.

**Troubleshooting** – We identify problems and recommend solutions in equipment, coatings, and processes.



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The Design Engineering Group also operates and maintains a state-of-the-art application lab, which is fully equipped with manual and automatic, non-electrostatic or electrostatic equipment.

Operational equipment consists of reciprocating automatic equipment such as guns, bells, and disks, plural component metering equipment, various manual spray apparatus, and a Class 100 clean room.

The Sherwin-Williams Product Finishes Design Engineering Group also continually evaluates new application methods for production feasibility. Most of the services listed can assist you in achieving green sustainability production objectives.

For more information, please contact your local Sherwin-Williams Chemical Coatings Representative, or contact us directly.