EISENMANN is among the leading worldwide manufacturers of complete coating lines. We work with the most advanced technologies and experience gained over the decades from several hundred real-world paint lines.

EISENMANN is the expert partner for future-oriented surface technology in all areas of industrial coating, from job coaters to the automobile industry.

Working in small teams, our engineers collaborate with specialists in environmental engineering, conveyance technology, and control technology to develop individual system designs.

We demonstrate our competence in more than just equipment design. As operators of complete painting facilities for the auto industry, we are responsible through our own personnel for economic facility operation and the highest surface quality.

Continuously providing new designs, EISENMANN is the trend-setter in surface technology. Example: the glass booth (above) or powder lines for the automobile industry.

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EISENMANN Technology and Know-how:
EISENMANN Powder Coating Systems.

Convincing Advantages
The advantages of powder coating compared to other coating processes are convincing:

> Virtually loss-free coating by means of overspray recovery.
> High-quality coating with an extremely scratch-resistant, shock-resistant, and corrosion resistant surface.
> No exhaust air problems, no paint sludge.
> Easy to automate.
> Coating thickness of 40 to 200 m (1.5 to 8 mils) are possible in one coating.

Over time, companies of all sizes and from all fields have made good use of these advantages. Now the auto industry - trendsetter in terms of quality, economy, and environmental compatibility - has also joined the ranks of those using powder applications with equipment from EISENMANN.

Color Selection no Problem
Advanced powder booth and custom system designs make possible economic operations and a high degree of flexibility even for users who change colors frequently. EISENMANN has the right system for every use: powder booth with filter recovery, cyclone separation, or combined systems for both methods.

The first ever overhead powder top coat line for the automobile industry from EISENMANN.
Perfect Fit

Turnkey - all equipment components in perfect harmony with each other - that’s your new powder coating line from EISENMANN:

Water-saving pretreatment, powder booth made of glass or stainless steel, energy-saving ovens, efficient material flow systems, and advanced controls. EISENMANN has its own in-house experts for all of these areas of concern. So you only need a single party to answer all your questions regarding the implementation of your new powder line.

Advantages from Custom Solutions:
The Complete Powder Coating Line from a Single Source.

EISENMANN delivers automatic and manually-operated powder booths for all application systems.
In order to obtain first-class surface quality, the workpieces must undergo a perfect pretreatment which is specifically laid out for your parts.

Fancy controls for appliances (above): All process parameters can be displayed and altered on the viewing screen on the control panel. Diagnostics can be conducted in the same manner.

Flexible material flow systems, like EISENMANN’s Power & Free Conveyor, organize the production flow and connect the coating process to the production processes both upstream and downstream.
Transparent in every respect: EISENMANN has created powder booths made of glass. Special safety glass and walk-on stain-less type steel floors have proven their value in real-world operations.

The Advantages of Glass Booths

- Less powder adhesion than in conventional booths because the booth walls cannot be electrostatically charged.
- Super-smooth surface, very good for cleaning.
- The ideal workspace for the manual coater. The transparent booth is easy to see into and permits personnel to have visual contact with the work environment. Because of the well balanced electrostatic conditions, the powder cloud goes directly onto the workpiece (instead of onto the coater).

Clean Floor, Best Surface Quality

Best coating quality is achieved when there is little powder in circulation.

This is why an automatic floor sweeping system is integrated into EISENMANN powder booths; it conveys overspray powder, that has not reached the recovery system, into the reservoir.

This is how the floor sweeping system, in conjunction with the powder recovery system, forwards all of the overspray immediately back into the powder circulation system.

Powder booths with filter recovery have proven themselves in the most strenuous real-world conditions.

Powder booth, recovery, and filters form a unit in which the complete recovery system can be exchanged depending on the color desired. The filter is cleaned automatically during ongoing operations, the exhaust air is returned directly to the hall as circulating air.

This manufacturer of radiators uses the glass booth with performance plastic filter.

The Advantages

Plastic Filter:
Highest degree of separation, high mechanical stability, easy to clean.

Better Air Flow:
Horizontal powder cloud with better wrap-around.

Short Powder Paths:
Reservoir is directly below the filter!

Rapid Color Change:
Detachable recovery units, movable powder booths or automatic filter cleaning system.

Easy Operation:
All units requiring maintenance are accessible and controllable during operation (i.e., sieve machines, reservoirs, etc.).
For Many Colors and Small Series: Powder Recovery with Cyclone Separation.

Powder booths with cyclone separation (mono- and multiple-cyclones) are ideal for distinct many-color coaters. In general, the cleaning of the separator system in cyclone booths is simpler than in filter booths, although the powder loss is higher.

The exhaust air travels horizontally through side openings into the cyclone. The recovered powder is transferred through a conveyor and a sieve into the main reservoir.

This manufacturer coats aluminum profiles and facades in many special colors in an EISENMANN powder booth with a mono-cyclone.
From Black to White: Implementing Colors Changes.

The following criteria are important in terms of good color changing concepts:

- Frequency of color change and production time per color.
- Percentile distribution of colors to be processed.
- Number of colors to be processed.
- Capacity and utilization of the system.

When throughput is not very high and the color is only changed every few days, a single additional recovery unit generally suffices.

Frequently several movable powder booths are used when there are high levels of throughput with standard colors and additional special colors.

When a booth is off-line, the color is changed by exchanging the complete recovery unit or by cleaning the filter in the special automatic cleaning system. Booths with cyclones have proved worthwhile for very frequent color changes with small production runs.

Diagram below: High rates of throughput and many colors require several partial powder lines that have different recovery systems.

Shown in the diagram: designs for rapid and economic color changes with two or more movable powder booths with filter recovery systems.
EISENMANN’s advanced pretreatment equipment saves fresh water and wastewater, is environmentally friendly, and ensures the greatest surface quality.

Maintaining and extending the life of process and rinse baths is not just economical, but it also makes environmental sense.

So today rinse water is used multiple times using counterflow or recycling techniques. Life for cleaner baths can be increased substantially by dividing into multiple zones or by using continuous oil separators.

Further standardized concepts are available for extending the service life and are optimally selected by EISENMANN in accordance with the application in question.

When the throughput is not all that high, a wastewater-free pretreatment utilizing an evaporator is an interesting alternative. No water goes to the drain; any distillate flows immediately back into the system.

Spray pretreatment with numerous options for bath maintenance.

Schematic of effluent-free pretreatment.
EISENMANN develops in-house the complete material flow and control technology for automatic coating lines. We work out the best solution for you individually in terms of efficient production flow, greatest operational reliability, and highest degree of economy.

Overhead conveyors, Power&Free conveyors, skid conveyors, programmed hoist systems, lift stations, transfer mechanisms and specifically developed special conveyors are fine-tuned to the workpieces and the operation.

Handling devices or gantry robots are available for connecting different conveyor systems and for workpiece loading and unloading.


directional controlled, flexible and robust Power & Free systems.

Gantry robots connect different conveyor systems in a wheel coating operation. The robot transfers the just-powdered wheels from the spindle conveyor to the chain-on-edge conveyor of the powder curing oven.
Economical and Energy-Saving: Powder Ovens, Any Style.

EISENMANN curing ovens are designed for high efficiency and the best surface quality. Continuous ovens with single or multiple passes or block arrangements with the water dry-off oven are heated directly or indirectly with oil, gas, electricity or recovered energy.

The structures range from floor-mounted single chamber ovens to elevated multiple pass ovens with energy-saving bottom entry/exit and optimized heating designs.

There are infrared ovens for workpieces with temperature sensitive components or high material thicknesses. Infrared ovens are also frequently employed as pregel zones for conventional convection ovens because of their excellent cross-linking effect on powder.

Combined water drier and powder oven with IRM emitters and air recirculation for aluminum wheels.
This company offers its customers lighting systems in a great variety of colors. Using the new EISENMANN powder line, it is economical to process standard colors in large lot sizes and special colors in small batches.

Heaters are increasingly delivered in fashionable colors. With two automatic booths for standard colors, 1 automatic booth having 6 recovery units for special colors, and one manual booth for small production runs and individual pieces, this manufacturer has ensured his competitiveness far into the future.

The first European plant for EC priming and powder coating of fully welded truck chassis was planned and built by EISENMANN. After electro-coating, the workpieces weighing up to 6 tons each are top coated in one of the three powder coating booths.

Complete powder coating plant with Power&Free system for compressor housings.
The EISENMANN Service offers an extensive range of services. These are tailored individually to the customer’s needs, thereby taking the know-how of the customer’s employees, the cost structure, the processes and the need for expertise into consideration.

Therefore, we regard ourselves as system providers when it comes to meeting the individual customer’s requirements.

**Maintenance Management**

- **Inspection**
  We determine the actual state of your system by conducting inspections and then inform you about the weak spots and possibilities for increasing your performance, or let you know if there is an urgent need to take action.

- **Servicing**
  In order to determine the target state of your system, our specialists not only conduct the servicing, but also carry out mechanical and electrical check-ups and safety tests. Routine servicing guarantees an optimum functioning of your system and increases its service life.

- **Repair**
  Our maintenance team also carries out any necessary repairs and component replacements of course.

- **Remote System Diagnosis**
  Using remote data communication, the remote system diagnosis enables our specialists to access your controls and material-flow computers quickly and easily, and remedy any faults within the shortest time.

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**On-call Service**

We offer you a 24/7, on-call service conducted by our Service specialists, which is based on a mutually agreed response time and customised to your own specific shift operation and production times.

**Service Contracts**

- **Maintenance Contracts**
  You can rely on EISENMANN Service. We offer you customised Maintenance Contracts for your system. You are reminded in good time of the next routine service which is carried out by qualified engineers. This enables you to plan the costs on a continuous basis and reduce the system downtimes by taking preventative measures.

- **Full Service**
  Due to our excellent experience gained in the construction and operation of highly automated industrial systems and factories, we are able to take over the entire maintenance of your system, allowing you to fully concentrate on the key processes of your business. We guarantee system availability at all times, and the value of your systems is preserved long-term through:
  - Preventative maintenance
  - Troubleshooting
  - Repairs

- **System Reconstructions**
  The EISENMANN Service is your first contact for system reconstructions or extensions, whether for paint-spraying and environmental technology, or for process technology and materials handling. We adapt your systems engineering to new conditions if, for example, you should wish to increase your throughput, or the product dimensions or weights have changed, or if your space planning necessitates this. We likewise offer you a first class service where production relocation is concerned.

- **Updates**
  Modernisation or conversions to new systems require modification measures, such as replacing controls, software and hardware updates, for example. Our specialists, with their high level of expertise, are available at all times.

**Process Optimisation**

We also offer you advice, of course, when it comes to optimising your production or improving it on a continuous basis. We place application and process specialists at your disposal who thoroughly analyse your processes and find out where the weak spots are.

In close liaison with your employees targets and measures for optimisation and plans of action are defined. Key issues can, for example, include quality problems, cost-saving potential and preventative maintenance concepts.

**Run-up Support**

With its “standby” concept EISENMANN offers individual support on site. Excellently qualified EISENMANN staff support your personnel by accompanying the production at start-up and also during the production. Your personnel are not left to their own devices here; they have direct access during the operations to the “standby” staff who step in when the situation becomes critical.