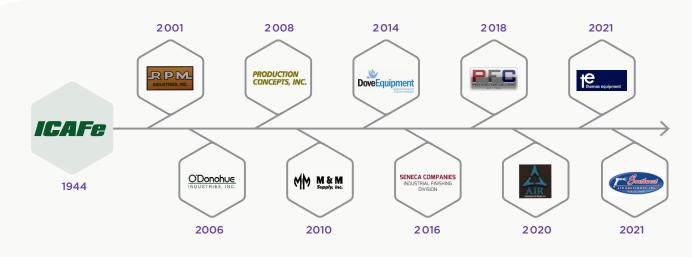




THE EVOLUTION OF

Timeline



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THE PRESENCE OF ICAFE COMPANIES



FOCUS

From manual batch conveyorized lines to fully automated and robotic liquid and powder coating systems, we work with our clients to develop processes to meet and exceed their expectations.

HISTORY

ICAFe started in 1944 and has expanded through organic growth and strategic acquisition.We currently service the Midwest, Southeast, West Coast, and all of Mexico.

SERVICE

- Training-in-House and On-Site
- Factory trained technicians
- Service Calls

- Warranty on repairs
- Preventative maintenance programs
- Technical support





INDUSTRIES SERVED



MANUFACTURERS REPRESENTED



5

SURFACE TREATMENT



Parts Washing

ICAFe Companies work with some of the best names in industrial parts washing. From cabinet washers and ultrasonic immersion dip tanks to completely automated conveyorized multi-stage wash units, we are able to offer a cleaning solution that will work with your process.









CABINET WASHERS

AUTOMATION SYSTEMS

IMMERSION WASHERS

PASS-THRU WASHERS



Environmentally Friendly Solvents

ICAFe Companies supply aqueous and nonaqueous environmentally friendly solvents. Many of these products perform as well or better than their traditional, more hazardous counterparts. Switching to safer solvents keeps your employees safer, the environment cleaner, and your waste removal fees lower.



Cleaning with CO2

Dry ice blasting and other CO2 technologies are waterless cleaning solutions that can replace aqueous and solvent-based cleaning operations. CO2 can also be used for deburring, surface profiling, and dust removal. CO2 technologies are used in a wide variety of industries including wood, plastics and rubber, automotive, and general industry.





MANUAL BATCH PRESSURE WASH





AUTOMATIC BATCH PRESSURE WASH



IN-LINE CONTINUOUS PRETREATMENT WASH

SURFACE TREATMENT



Components of an **Effective Blast System**

Recovery System

Blast Enclosure

- Dust Collection • Media Cleaning
 - Blasting System
 - Operator Safety
- Work-Piece Handling · Compressed Air



Blasting and Deburring

RIVEER

Blasting and abrasive deburring are often necessary to provide an appropriate surface profile for a finishing process. They can also be used as effective cleaning techniques. ICAFe Companies offer offline batch and inline blasting and deburring equipment to integrate blasting into your process.



Chemical Treatment

The cleaning, degreasing, and preparation of parts involves chemicals that can greatly impact the economics of a process if it is not run efficiently. ICAFe Companies offer solutions to filter, treat, and recycle wash water and various chemistries in order to minimize material consumption, environmental impact, and disposal costs.

Wash water recovery systems offer chemical reclamation, solids separation, and oil coalescing all in a closed-loop process. The closed-loop system is ideal for phosphate cleaning and degreasing applications.



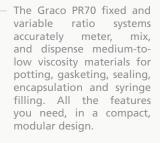
ASSEMBLY AND ELECTROPLATING



Sealants and Adhesives

Virtually every product assembled requires bonding or sealing at some stage of the process. Graco offers manual and automatic technologies for single-component and two-component bonding and sealing for a broad array of products, markets, and end-uses.

Designed for flexibility, the Graco HFR Metering System handles 2-component materials including epoxies, silicones, resins, and more. With its accuracy and repeatability, the Graco HFR lets you hit a specific ratio and volume – the first time and every time. You reduce scrap and rework with accurate, on-ratio dispensing.





Hot Melt

SenecaFTI works closely with ITW Dynatec to provide adhesive application solutions to a variety of industries. ITW Dynatec is a global supplier of hot melt machines that expands the boundaries of conventional application methods.

Plating

ICAFe, Inc. is a leading provider of aqueous systems and integration services to plating customers across the Midwest. Our capabilities allow for the design, engineering, and integration of robust industrial electroplating systems.



Filtration Systems, Media, & Parts



Pumps & Parts



С

Heat Exchangers



Tanks, Liners, & Tank Repairs



Air Handling & Scrubbing











Plating Barrels & Spin Dryers

Waste Treatment

Rectifiers

Anodes & Parts

Miscellaneous

POWDER COATING



Powder Coating

Powder coating is a clean process that provides an attractive, durable, and high-quality finish. The coating is applied as a free-flowing dry powder and is cured by heat in order to create a hard finish.



ICAFe Companies carry a full line of Wagner, MS Powder, and Sames-Kremlin powder coating application equipment. Manual applicators can be integrated into both batch and continuous processes.





FLUID HANDLING



The fluid handling system is at the heart of every industrial or automotive liquid finishing process. A well-designed and properly maintained fluid handling system will provide consistent material delivery while minimizing energy consumption.



ICAFe Companies offer a variety of pneumatic pumps for supply and circulation systems. Selecting the appropriate pump for a given process is important for obtaining consistent material flowrate and pressure while minimizing energy costs and material shearing.



Electric pumps can offer significant energy savings over their pneumatic counterparts while simultaneously offering an improved level of control. Many electric pumps come with advanced reporting and diagnostic capabilities for monitoring the health of a fluid delivery system.



Paint mix rooms and paint kitchens are used to safely store flammable or hazardous materials and deliver them to the spray area through fluid circulation lines. ICAFE Companies offer Paint Mix Rooms and Paint Kitchens from Global Finishing Solutions.



In catalyzed 2-component finishing, proportioners can drastically reduce wasted material. ICAFe Companies offer various 2K proportioners that operate with different dosing technologies—allowing the appropriate proportioner to be selected for a specific mixing process. Most proportioners can be ordered in stainless steel acid catalyst-compatible versions.



A properly designed, configured, and installed piping system ensures that energy consumption is minimized, solids remain in suspension, and maintenance is easily performed. ICAFe Companies offer piping design and installation services with our finishing systems.



ICAFe Companies offer a huge selection of finishing accessories to customize a system to suit every customer's unique requirements. Accessories include agitators, regulators, pressure vessels, filters, ball valves, air drying systems, gauges, hoses, surge suppressors, and much more.

LIQUID FINISHING



Liquid Coating

As customers demand better performance, consistency, and quality, they also demand better efficiency, flexibility, and economy out of their liquid application equipment.

Robotics

Robotic automation allows finishing processes to be operated by fewer individuals with a higher degree of consistency and repeatability. Robots can be integrated into specific stages of a finishing process or used to completely automate the entire operation. ICAFe Companies' engineering group has integrated robots into a diverse collection of applications including automotive, general industry, and food processing.





At our East Peoria, IL location, Dove Equipment has a spray booth with robot mount platforms that can be setup for testing applications.

BOOTHS



Booths

ICAFe Companies partner with Global Finishing Solutions and other suppliers to design customized blast booths, wash booths, paint booths, sanding booths, and grinding booths.





BOOTHS

A proper blast booth can be designed and engineered for your application whatever your budget—from a fullyequipped blast room with recovery and dust collection—to a simple sweep-in recovery system.

WASH BOOTHS

Wash booths can be designed for manual or automatic operation. They can also be designed to accommodate a variety of conveyor types. These booths are often partnered with wastewater recycle systems to achieve zero liquid discharge.



GRINDING AND SANDING BOOTHS

Designed for both sanding and grinding applications, GFS high-production dust collection booths feature an open face booth design, fully assembled dust collection modules, and high-capacity, low-noise fans for capturing dust and recirculating clean air.



PAINT BOOTHS

Paint booths provide a clean space for coating applications. It is necessary for a booth to provide adequate air flow, dust collection, and lighting to achieve an excellent paint job. GFS paint booths offer high-quality and cost-effective solutions for industrial manufacturers.

POWDER BOOTHS

Powder coating booths from GFS provide a bright, efficient environment for powder coating operations. An integrated Powder Collection Module features high-efficiency cartridge filters for capturing powder overspray, and a load-triggered filter pulsing system, which cleans filters for a longer life span.

PERSONNEL LIFT SYSTEMS

Industrial lifts from LPI Lift Systems can be integrated into booths for surface preparation, blasting, washing, coating and fabrication. Industrial lifts are available in 1-, 2-, and 3-axis configurations to accommodate a range of process requirements

HEAT PROCESSING AND CONVEYANCE



Conventional Ovens

There are several factors that affect oven choice such as part geometry and size, expected throughput, material substrate, and coating properties. ICAFe Companies offers Global Finishing Solutions batch process ovens and continuous process ovens for drying, curing, baking, or preheating.





Infrared Curing

ICAFe Companies work with several infrared oven manufacturers to offer a variety of heat processing technologies to cure coatings.





Conveyance

Choosing the proper method of product conveyance is critical to maximizing throughput, transfer efficiency, and flexibility.



ENGINEERED SYSTEMS

ICAFe Companies design systems to take parts from surface preparation to cure. We have in-house systems groups at seven locations and engineers with a variety of disciplinary backgrounds that focus on various aspects of the finishing process.

We specialize in fluid handling and are wellversed in the requirements and application of industrial and automotive coatings. Our engineering team designs detailed AutoCAD drawing layouts as well as the complex 3-dimensional piping diagrams seen in large manufacturing facilities. From manual batch conveyorized lines to fully automated and robotic liquid and powder coating systems, we work with our clients to develop processes to meet and exceed their expectations.

FLUID PIPING & DESIGN

ICAFe Companies' engineering group has been designing robust fluid handling systems for automotive and general industry for many years. Piping layout and design is an important component to any finishing process, and ICAFe Companies provide our customers with effective solutions in paint circulation and material transfer.

ENGINEERING PROCESS

Concept review

- On-site survey
- Design & approval drawings
- Fabrication and equipment integration
- Assembly
- Installation
- In-plant startup
- Programming and
- process troubleshooting
- Manufacturers' warranty fulfillment
- Employee training

CONTROLS

ICAFe Companies have the ability to design, build, and program custom controls and integrate them into many different types of systems.

ENGINEERING LOCATIONS

Baldwyn, MS, US East Peoria, IL, US Roseville, CA, US Waukesha, WI, US Monterrey, NL, MX Puebla, PU, MX Querétaro, QE, MX

ENGINEERING AND SYSTEMS INTEGRATION

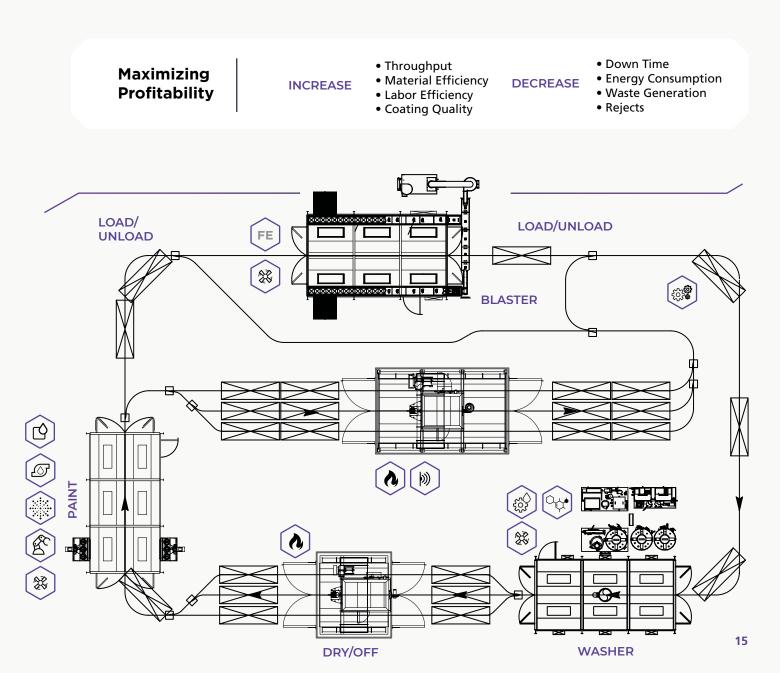


Systems Integration

Our dedicated and experienced team of technical salesmen collaborate closely with our engineering group to determine practical, appropriate, and costeffective systems for our clients' unique requirements. We work with a vast network of world-class suppliers that allow us to offer novel solutions in a marketplace that emphasizes ever-increasing quality, economy, and efficiency.

Process Determination

Designing and integrating a liquid paint or powder coating system is more than selecting compatible unit operations and assembling them on the shop floor. ICAFe Companies work with our clients to discover their unique process requirements and design a system to meet through put, quality, and economy specifications.



VIRTUAL PAINTER TRAINING



SimSpray Virtual Training

SimSpray is a turnkey virtual reality training bay for finishing operations and classrooms. It features camera-based tracking, touch screen control, and highresolution graphics that are housed in a lightweight, compact case.



ICAFe Companies have partnered with VRSim to bring virtual reality operator training to general industrial manufacturing operations. SimSpray has been shown to save up to 50% of training costs and train proficient workers faster and safer. SimSpray is available for liquid coating, powder coating, and abrasive blasting virtual training.



CAMERA TRACKING

Infrared tracking system allows a wider area of accurate tracking and less clutter than previous generation magnetic tracking systems. Coverage map enabled to gain a better understanding of overlap and transfer rates.

IMMERSIVE CONTROLS

A new "tablet"-like control system allows the user to control more of the SimSpray controls from inside the FMD-limiting the amount of times the headset needs to be removed.

VISUAL CUES

Guide training with distance, angle, and speed cues to develop ideal coating techniques.

CUSTOM COURSE CREATION

Create custom curriculums and modify performance targets such as mil build, angle, distance, and speed based on the requirements of your specific environment.

COVERAGE MAP

View applied paint thickness vs. target mil A performance review is available build with an easy-to-use coverage map. Users can spray with the coverage map enabled to gain a better understanding of overlap and transfer rates.

SCORING SYSTEM -QUANTITATIVE ANALYSIS

for each painted part. Improve angle, distance, speed, and transfer efficiency to achieve higher scores.

SAFETY

ICAFe Companies emphasize safety in the products, systems, and services that we provide. By prioritizing safety via continuous training, NFPA-compliant fluid handling and application systems, and innovative Personal Protection Equipment, we can help ensure that your finishing systems run as efficiently as possible.

TECHNOLOGY

Maximizing production efficiency is the perpetual goal of manufacturing companies—and surface finishing is no exception. ICAFe Companies has close relationships with the world's biggest vendors in the industrial finishing market. This allows us to stay on the leadingedge of coatings application technology.

QUALITY

Our team takes the necessary time to properly analyze the individual requirements of each of our customers. ICAFe Companies works with national and regional coatings manufacturers to ensure that we are providing the most qualified equipment to properly apply their unique coatings.

WHAT WE OFFER

CONTINUOUS IMPROVEMENT

We're committed to working with our customers to discover improvements in every facet of their finishing operations. Whether it's new spray technologies, energy efficient equipment, environmentally friendly solvents, quickcuring ovens, or painter training, we work with you to ensure your process stays current and profitable.

ICAFe Companies

PREVENTION

The best way to maximize efficiency and minimize downtime is by eliminating potential issues before they become real problems. ICAFe Companies will work with you to tailor a preventative maintenance program for your finishing operations to keep your through put high, quality consistent, and sanity in-check.

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