Innovation and excellence have always been the George Koch Sons philosophy. From George Koch's example of determination, optimism and faith in our industrial tomorrow, George Koch Sons has grown into the diverse corporation it is today. From the small tin shop on Pennsylvania Street, to a diversified global organization, George Koch Sons has grown enormously.

Today, George Koch Sons, LLC is a wholly-owned subsidiary of Koch Enterprises, Inc. (KEI). It is headquartered in Evansville, IN and now has more paint finishing systems online than any other company, in nearly 40 countries. It is still owned and managed by the Koch family, but is now a part of a highly-diversified company that consistently ranks among the largest privately-held companies in the U.S. It is still characterized by honesty and craftsmanship, but those qualities have been augmented by world-class design, engineering, fabrication, installation, and project management capabilities.

2013: KOCH acquired Price Industries, Inc., a Grand Rapids, MI-based company founded by Bob Price in 1983, as a provider of custom fabricating for construction and excavating companies. They brought several decades of experience providing material handling systems to the aerospace, automotive, industrial, military and agricultural industries.

2015: KOCH acquired Walgren Co., a Grand Rapids, MI-based company founded by Gus Walgren and Arnold Parker in 1955, as a provider of chemicals and equipment to the anodizing industry. By 1962, it had developed into a full-service company with the engineering, manufacturing, and service capabilities to design and build turnkey finishing lines.

2016: Price-Koch Industries and Walgren Company joined the KOCH Team as PriceWalgren, a division of George Koch Sons.

2017: KOCH acquired Jessup Engineering, a Rochester Hills, MI-based company founded in 1971, as a manufacturer of programmable hoist automation for the metal finishing industry. They joined the KOCH Team as Jessup Systems, a division of George Koch Sons.

The KOCH Team plays a critical role in providing industry leading manufacturers the solutions necessary to remain competitive by reducing factory costs through system reliability, automation, material optimization, energy efficiency and efficient labor utilization.

KEI

In 1999, a new parent company, Koch Enterprises, Inc. (KEI), was created. KEI is a global, diversified, privately owned corporation that has been serving customers for 144 years from its headquarters in Evansville, Indiana. The company is listed in the Indiana Business Journal Top 10 Private Companies. Koch Enterprises' companies are leaders in four separate industry sectors:

MANUFACTURING
Gibbs Die Casting Corp.
Audubon Metals LLC

EQUIPMENT DESIGN/CONSTRUCTION
George Koch Sons, LLC

WHOLESALE DISTRIBUTION
Brake Supply Co., Inc.
Koch Air LLC

IT SYSTEMS
South Western Communications, Inc.

www.kochenterprises.com
GLOBAL RECOGNITION in these industries:

- Aerospace
- Agriculture
- Appliance
- Automotive & Transportation
- Building Products
- Construction
- General Industrial
- Military & Defense

Our highly experienced Team Members deliver the most reliable systems and the best customer experiences in the markets we serve. Our customers recognize George Koch Sons as **A SMARTER SOLUTION. WORLDWIDE.**

**HEADQUARTERS**

George Koch Sons, LLC  
Evansville, Indiana, USA

**PriceWalgren**  
Grand Rapids, MI, USA

**Jessup Systems**  
Rochester Hills, MI, USA

**George Koch Sons de Mexico**  
Queretaro, QRO, Mexico

**George Koch Sons Europe Ltd.**  
Lichfield, Staffordshire, UK

Sales & Mfg Partners
- Beijing, China
- Changzhou, China
- New Delhi, India

©George Koch Sons, LLC
ELECTROCOAT SYSTEMS

Since electrocoat’s earliest development, George Koch Sons has worked with customers around the world to implement more than 300 high performance electrocoat systems in a wide range of industries. Our highly experienced team of professionals provide full-service, turnkey system support with expertise in all process stages from pretreatment through final cure.

Did you know that George Koch Sons designed and installed the FIRST industrial e-coat system in North America in 1964 for Delco?

KOCH e-coat systems are used in more than 200 facilities around the world, by some of the most demanding customers in the world. We specialize in turnkey automated finishing systems, including surface preparation, coating and curing as well as material handling, wastewater treatment, chemical recovery, controls, and auxiliary systems.

We design our e-coat systems to fit into the smallest footprint possible, and are designed to accommodate ovens on top or to the side, depending on available headroom. KOCH e-coat systems can integrate into a variety of new or existing material handling systems.

POWDER COAT SYSTEMS

Our highly experienced team of professionals provide full-service, turnkey powder coat finishing system support with expertise in all process stages from pretreatment through final cure, integrating the powder application equipment and booths of your choice, best suited for your application.

KOCH has led the industry in pioneering efforts since 1969, when we became the first company to manufacture a powder finishing system. Since then, we have long served as world leaders in advancing powder coating technologies and expanding their use, with many patented/industry firsts.

Environmental (EV) Rooms

Our EV room design features reheat coils for better relative humidity control, and climate controlled clean rooms for quality air distribution. Our EV rooms are insulated and equipped with personnel access doors, viewing windows, storage space, and equipment roll-up doors. An average lighting of 50 foot candles is provided throughout the room. We offer optional central vacuum systems and drop ceiling or insulated roof panels.
LIQUID PAINT SYSTEMS

We are pioneers in liquid painting systems, working with customers around the world who first came to us in the 1930’s and -40’s. We continuously advance and refine liquid coating technologies to enhance finish performance, address environmental issues, and meet the needs of our customers for greatest uptime performance and low life-cycle costs. Today, our systems are used alone or in combination with e-coat and/or powder to meet stringent quality, cost, operating and emission requirements.

Liquid coating is the oldest and, for many products, still the best available finishing technology. It is widely used for automotive and other products requiring smooth, mirror-like finish. It is widely used in finishing operations that require fast, frequent color changes, application of UV-curable, waterborne, and plural component coating materials on plastics and wood.

PORCELAIN ENAMEL SYSTEMS & FURNACES

With the purchase of assets of Engineered Finishing Systems (EFS), we now offer porcelain enamel expertise to our portfolio in automated finishing systems, including liquid paint, powder, electrocoat, anodizing, plating, and now - porcelain enamel. With the addition of porcelain enamel and the expertise of key EFS personnel, KOCH provides the widest range of automated finishing systems in the world.

Our porcelain enamel furnaces are engineered to maximize efficiency, achieve an optimum firing curve, and minimize dirt generation or infiltration and maintenance. They are designed to cure enamel, either wet or powder, from any of the major enamel suppliers, and finish parts uniformly and completely without discoloration or dirt rejects. We offer various options including batch, intermittent, or continuous type systems.

Any coating. Any substrate.

Our Sales Team can help you determine what kind of system is right for you!
PriceWalgren and Jessup Systems are leading manufacturers of programmable automatic plating hoist systems, producing equipment for barrel plating, rack plating, alodine and anodize, electrocoat, phosphate coating, and dye penetrant inspection.

**BARREL SYSTEMS**

We have installed hundreds of turnkey automatic barrel finishing systems. We design and assemble everything from new automatic plate-bake-chromate equipment, to hoist and control upgrades of existing plating equipment. Our turnkey barrel plating system options include single or multiple hoists, process tanks, and dryers. Integrated systems include HMI-PC-PLC control for rectifiers, ventilation, air agitation and waste treatment. Our automatic tote box dumpers, vibratory feeders, scales, load/unload chutes, and powered shuttles reduce labor content.

Our high capacity poly, steel, and stainless steel barrels improve productivity and quality. Their cylindrical plating barrel designs provide 18% more capacity than polygonal types. Consistent part-to-anode spacing speeds the plating process. We also provide more consistent plating through custom tumbler rib placement. Positive electrical contact is the result of a single-point saddle and barrel drive design. Programmable plating barrel rotation and oscillation is available with a touch of the HMI.

**RACK SYSTEMS**

Our turnkey rack plating equipment options include single or multiple hoists with variable speed drives and ultrasonic work bar detection, and our standard features include safety set-down legs and anti-sway bars.

Custom features include direction of travel rack tip, cross direction of travel rack tilt, and programmable drip tray capability to manage part drainage. Other popular options include ultrasonic cleaning, in-tank rack agitation, air knives, in-line dryers, and anode service stands. Operator involvement can be further reduced with automatic load/unload elevators and rack storage/retrieval.

**BASKET SYSTEMS**

Straight sided stainless steel baskets for automatic processing are designed for top or bottom gripping, and process small parts or stampings without spillage. Typically oscillated in process tanks, our automatic hoists lower work directly into centrifugal dryers. Programmable motion allows fully inverted unloading to reduce part damage and eliminate mixing. Their method eliminates barrel-to-basket transfers common to older plating equipment.
SPECIALTY SYSTEMS

PriceWalgren and Jessup Systems are world leaders in the design and assembly of plating systems for the efficient and effective application of surface finishes.

We supply the following specialized equipment for turnkey systems:

- Load/Unload equipment
- Etch enclosures
- Bright dip enclosures
- Automatic and manual tank covers
- Hoist drip trays
- Hoist enclosures
- Counterflow rinse systems
- Etch, chrome and nickel recovery
- Ion exchange
- Scrubbers
- Mist eliminators
- Water conductivity control
- Water addition systems
- Water recovery
- Chemical replenishment

Our specialty systems can provide cleaning and pretreatment followed by paints, lacquers, adhesives, electrocoat and dye penetrants. Oscillating or positional baskets process sensitive parts without damage.

ANODIZING LINES

We are a world leader in the design and assembly of anodizing equipment for precision applications. Our anodizing equipment is used for these processes:

- Type I: Chromic Acid
- Type II: Sulfuric Acid (SAA)
- Type III: Hard Coat (HCA)
- Phosphoric Acid (PAA)
- Boric & Sulfuric Acid (BSAA)
- Thin Film Sulfuric Acid (TFSAA)
- Titanium Anodizing
- Sealing
- Bright Dip
- Dye
- Conversion Coat/Alodine

The anodizing processes use controlled electrolytic oxidation to develop a tenacious aluminum oxide coating on the surface of an aluminum sheet or component. Anodizing becomes integral to the substrate - it forms by a protective layer "growing down" into the metal.

Anodizing substantially increases resistance to corrosion, scratching and wear, provides insulation, maintains high reflectivity, and enhances appearance.

Anodizing can be used alone and can achieve a variety of color and texture effects through dyeing, electrocolor or interference color.
ACOUSTICAL & THERMAL SOLUTIONS

ACOUSTICAL PRODUCTS

George Koch Sons has invested more than 50 years in the design and manufacture of enclosure systems that fit your needs for superior acoustical performance, as well as, flexibility, expandability and serviceability! Our enclosures offer easy assembly, highest structural integrity, and surface finishing engineered for long life and easy maintenance.

ACOUSTICAL NOISE BARRIERS

The KOCH acoustical noise barrier system is a lightweight, sound-absorptive modular panel system that is placed between the noise source and receiver. The system is installed outdoors, on the ground or on the roof in a vertical or horizontal configuration to create highly effective environmental noise reduction solutions.

ACOUSTICAL NOISE ENCLOSURES

KOCH acoustical noise enclosures feature significant sound reduction and absorption characteristics as a result of our unique pre-fabricated modular acoustical panel construction, interlocking tongue-and-groove seems seems that eliminate separate panel connectors and “H” joiners making the KOCH system quick and simple to assemble. Our optional baked-on powder coat finish is beyond comparison!

CONTROL PULPITS & IN-PLANT OFFICES

KOCH personnel enclosures, control pulpits and in-plant offices are a cost-effective alternative to controlling noise at the source. The units are designed for extreme environments, providing noise, vibration, thermal, dust and humidity isolation.

ACOUSTICAL DOORS

KOCH acoustical doors are engineered and fabricated for a lifetime of operation. Doors are factory assembled and shipped with hardware installed to reduce field installation costs and ensure acoustical integrity. We produce:

- Single- and double-leaf swing doors
- Large custom swing doors
- Horizontal sliding single-leaf and bi-parting doors

SOUND ABSORPTION PANELS

The KOCH sound absorption panel system is a durable, sound-absorptive, flat-surfaced modular panel, placed on existing walls to reduce reverberation and lower sound reflection to control noise. The system is installed in a vertical configuration to create highly effective, architectural compatible noise reduction solutions.

ACOUSTICAL PANEL MATERIALS SPECS

<table>
<thead>
<tr>
<th>PANEL BACK</th>
<th>16-gauge galvanized steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANEL FRONT</td>
<td>22-gauge galvanized steel, perforated 3/32” diameter round holes on 3/16” staggered centers</td>
</tr>
<tr>
<td>PANEL FRAME</td>
<td>18-gauge galvanized steel</td>
</tr>
<tr>
<td>ACOUSTICAL CORE</td>
<td>4 lb./cu.ft. density mineral wool that is noncombustible, inert, mildew-resistant, non-settling and features a flame spread of 15 and smoke developed rating of 0, per ASTM Standard E84</td>
</tr>
<tr>
<td>PANEL JOINT</td>
<td>Interlocking tongue-and-groove</td>
</tr>
<tr>
<td>PANEL THICKNESS</td>
<td>2”, 3”, 4” or 6”</td>
</tr>
<tr>
<td>LENGTH</td>
<td>16’-0” standard maximum when factory powder coat finished; 22’-0” standard maximum when not factory finished</td>
</tr>
<tr>
<td>COLORS</td>
<td>RAL powder coat colors</td>
</tr>
<tr>
<td>ACCESSOR</td>
<td>Flashing, doors, windows, fasteners, support steel</td>
</tr>
<tr>
<td>ENGINEERING</td>
<td>AutoCAD engineering approval and final assembly prints provided. Installation instructions and AutoCAD assembly prints are emailed prior to shipment.</td>
</tr>
<tr>
<td>OPTIONS</td>
<td>Other gauges of steel, custom widths, custom color matches and finishes</td>
</tr>
</tbody>
</table>
THERMAL PRODUCTS

We are the leading manufacturer of prefabricated, modular thermal panels and enclosures. Modular thermal panels were developed by KOCH in the 1930’s for our thriving worldwide turnkey automated finishing system business. Today, our panel products are the leading choice among OEMs and mechanical contractors and now represent a large percentage of our production.

KOCH modular thermal panels are fabricated without exposed dimple fasteners at the vertical seams, and feature the most efficient “ISO Slot” thermal break seam and precision “Tab-in-Slot” roll-formed frame. Our unique roll-forming coil processes enable fabrication of panels up to 22 feet, saving installation time and costs.

Applications

- Industrial ovens
- Bakery and food processing
- Paint finishing systems
- Heaters and combustion chambers
- Environmental room enclosures

ENVIRONMENTAL CONSERVATION

Environmental regulations affect the most basic decisions about pretreatment and automated finishing processes. Our experience in these processes has naturally led to our experience in wastewater treatment and chemical recovery systems. Our comprehensive environmental systems combine the two to ensure compliance with regulations and to ensure the highest cost-efficiency in paint, powder, and other finishing operations.

We design modular batch, duplex batch, and continuous treatment systems, including collection tanks, treatment modules, clarifiers, sludge thickeners, final pH adjustments, sand filters, flow monitoring, water re-use, and sand filter transfer. Each system must integrate effectively with the processes that feed it, so it makes sense to work with a single source, with experience in both environmental and paint and powder systems.
SALES SUPPORT
We know that product quality and line production are absolute requirements. Our knowledgeable sales and engineering design team will prepare an evaluation of your site, system and objectives. We will share with you our experience with requirements similar to yours, and help you build on this information so that your system is the most reliable, efficient and most cost-effective available.

ENGINEERING & PROJECT MANAGEMENT
One of the most important decisions in planning new or expanded automated finishing and processing capabilities is deciding who you’re going to work with. Our highly skilled engineers, designers and project management professionals know the technologies involved and the alternatives. We can serve as a single source for all systems as well as for after-sales support, aftermarket parts, and spare parts.

FIELD INSTALLATION SERVICES
KOHCH service professionals provide everything, including installation supervision, training, system evaluation, adjustment, and preventive maintenance. We work hard to solve and prevent future finishing system problems, doing everything it takes to protect your investment... from start to finish.

Contract management and installation by our technical experts is the best in the industry. If you choose to perform the installation work independently, KOCH can coordinate and supervise appointed contractors, sub-contractors, and other suppliers to guarantee proper installation.

Upon successful start-up, KOCH will provide your staff with the detailed training necessary to keep your finishing system operating at its peak.

Our service experts will customize a preventive maintenance program to keep your finishing system performing at its very best, by providing regular on-site maintenance inspections and making any necessary adjustments.

We are available to answer your questions or provide emergency troubleshooting service 24/7. Our experienced customer service team members are ready to assist you in correcting a problem or replacing a part - getting your system up and running at its maximum performance level with minimum downtime.

Our commitment to service is on-going and we strive to provide service at the highest quality. We are always ready to go to work for you. When you call KOCH for project assistance, you can expect the very best - from start to finish.

"Delivering a superior class of automated finishing systems."
- The George Koch Sons' Mission
CUSTOMER SERVICE & SPARE PARTS

Our highly trained professionals will manage and execute every phase of your project - from the initial contact to after-sale service and support.

24/Seven

During the course of your project installation, our customer service team will work with you to establish an inventory of replacement or spare parts appropriate for your specific equipment, process and duty cycle. You will find that the initial cost of obtaining an appropriate inventory of spare parts is an excellent investment to minimize unplanned future interruptions to production. In addition, we will provide your staff with the detailed training necessary to keep your finishing system operating at its peak performance.

CURTAIN COATERS & FLATLINE EQUIPMENT

The KOCH/ASHDEE pressure heading coating system provides precise control of the coating application onto flat substrates of all types. The system is ideal for the application of solvent or waterborne coatings, adhesives, and UV coatings at ambient or elevated temperatures.

Experienced Customer Service Engineers are available for phone or on-site consultations. All equipment is US-manufactured and repair parts are stocked for immediate availability.

OUR CUSTOMER LAB

For quality and performance testing, George Koch Sons has a customer test lab facility capable of handling virtually any part size up to 8’ x 8’ x 8’ or weights up to 1,600 pounds.

Our Customer Lab includes a closed-loop monorail paint line, including: pretreatment dry-off, dry-off oven, spray booth, IR, radiant wall, convection curing oven, cooldown tunnel, and powder application and curing equipment.