

Chromalox Value-Added Products and Services Are Available Worldwide



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Chromalox® PRECISION HEAT AND CONTROL

Precision Electric Heat and Control Systems
for the Transportation Industry



APPLICATIONS

UNSURPASSED EXPERIENCE

Chromalox provides precision heaters and controls for more applications and industries than anyone in the world. We serve industries as diverse as restaurant/foodservice, pharmaceuticals, chemical processing, the military, power generation . . . and transportation.

CHROMALOX BRINGS MORE TO YOUR APPLICATION



The Chromalox Difference

Some companies build heaters and controls. Chromalox does more.

Chromalox brings a dual focus to the marketplace. We focus on precision . . . precision in the design and manufacture of our products and precision in their performance in order to provide the finest products for your application. And we focus on your specific application with the insight to help maximize its performance and efficiency, and the technical support to help you achieve it.

You don't have to go to one source for a heating element, another for a sensor, and another for a control. Chromalox has the broadest line in the industry—and the experience and expertise—to put it all together for your application.



RESOURCES TO HELP GETTING IT DONE, EASIER

Technical Assistance on the Internet at www.chromalox.com

Go to www.chromalox.com anytime, day or night, for valuable information in product literature, product specs, training manuals, and technical documentation. You'll find answers to questions about anything from electronic temperature controllers, pumps, and fluids, to material compatibility, corrosion, and wire sizing.

Unmatched Stock, Rapid Delivery

Chromalox maintains an inventory of nearly one million items. We also operate the fastest delivery system in the business. We can ship any component or system we stock within 24 hours through our chromalox.com electronic order entry system. Same-day delivery is available for many items. In addition, factory offices, stocking representatives, and over 500 authorized distributors carry Chromalox components and systems for same-day pickup. For assistance, call 1-800-443-2640.



SERVICE AND SUPPORT

SERVICE AND SUPPORT TO MINIMIZE YOUR DOWNTIME

As the world's most comprehensive manufacturer of electric heat and control products and systems, nobody knows heaters, controls, and applications like Chromalox. We know your Chromalox heaters and controls from the component parts on up. We understand their functionality. And we're there to support you during installation and your customer long after.

CHROMALOX IS WITH YOU EVERY STEP OF THE WAY



Engineering Support in the Field

The industry's largest and most experienced group of engineers is right there . . . in the field . . . with you. The majority of our 300+ field sales representatives are degreed engineers, and all are experienced with Chromalox heating products and applications. So from the moment an electric heat and control application has been identified, Chromalox is ready to provide expert support wherever you are, whenever you need us.



Emergency Service

Emergency on-site service is also available when the situation demands it. Chromalox understands the importance of being prepared and ready to produce. That's why our service technicians are available 24x7 and will come to you anywhere in the world.



Professional Services

Available Chromalox comprehensive service and support also include a selection of professional services to help integrate, operate, and service Chromalox heating and control equipment for your application.

Isometric Drawings: Chromalox will generate 2D and 3D drawings that show how Chromalox heating and control products are integrated into your application.

Training: Chromalox offers on-site training of your personnel to help ensure that your Chromalox equipment is properly installed and operating. Expertly trained personnel can better achieve the best results in your manufacturing process, as well as optimize equipment service life and maximize intervals between required maintenance.

Diagnostics and Troubleshooting: Our experienced engineering staff can help to optimize your application. They are well-versed in diagnosing and correcting application, installation, and operating issues, and can custom-design heaters and controls that meet your exacting requirements.



For any Chromalox service need call 1-800-443-2640

WHEN SAFETY, COMFORT, AND EFFICIENCY ARE PARAMOUNT, CHROMALOX IS THE BRAND TO TRUST

We Understand Transportation Applications

From heaters that prevent condensation in sensitive aircraft flight instruments to heaters that keep passengers comfortable in railway passenger cars, to heaters that maintain fuel and lubrication oils aboard ship, and many, many more applications, we know how to provide and control heat where it's required in your application. We've been doing it for decades.

Our expertise, combined with the most stringent material and manufacturing standards you'll find in the industry, provides you with an array of products you can count on to perform to your requirements.

Chromalox Can Meet Your Specific Challenges

With that kind of experience behind us, Chromalox understands the unique challenges that designers and manufacturers of OEM applications—and those who serve and maintain them—face. And we have the knowledge, experience base, local support, and technical skills to meet those challenges with you.

Chromalox Is Focused on Continuous Quality Improvement

Implemented statistical process control, investment in manufacturing automation, ISO certification, and compliance to stringent third-party approvals—all help you achieve a competitive edge. It's another reason why Chromalox is the brand to trust.

SUSTAINED LEADERSHIP FOR NEARLY A CENTURY



It all began in 1915 when an electrical engineer named Edwin L. Wiegand invented and patented the very first metal-sheathed electric heater. Two years later, Mr. Wiegand founded Chromalox to deliver this breakthrough product to the market. Performing with unprecedented reliability, the

patented element set the industry standard in value, quality, and dependability for electric heating. Today, those high standards continue as industries turn to Chromalox as their first choice in solving simple to complex electric heating applications.



A LEGACY OF INNOVATION

A LEGACY OF INNOVATION

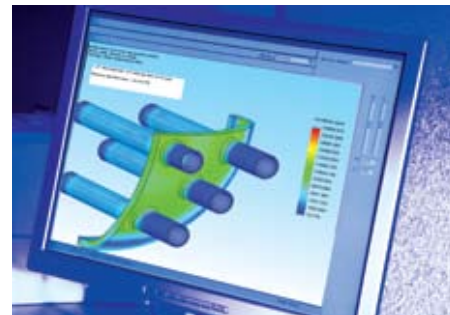
Chromalox has been developing better means of applying electrical heat since 1915. That's when we introduced the world's first metal-sheathed heating element.

BENCHMARKS OF THE INDUSTRY'S DESIGN AND ENGINEERING LEADER

- Chromalox introduced the world's first metal-sheathed heating element more than 95 years ago
- Chromalox engineers more than 3,000 unique, new products every year
- Chromalox has more than 700,000 customer designs on file
- Chromalox in-house lab certifies products for both CSA and UL requirements

ENGINEERING LEADER

UNRIVALED DESIGN, ENGINEERING, AND MANUFACTURING CAPABILITIES FOCUSED ON YOUR COMPLETE HEAT AND CONTROL APPLICATION



Front-End Engineering Design Assistance

Accurate planning and sound engineering are always keys to a successful application. Chromalox has more experience in precision heat and control design than anyone else in the industry. Let us put that experience to work for you. Our engineering support staff can help to properly select and specify heaters and controls that will get the job done right so you can be sure that the specified equipment will operate as desired.



Comprehensive Engineering Capabilities

Chromalox provides engineering assistance with integrating our products into your application to help reduce installation labor and ensure proper operation to specification. Chromalox offers training tools and resources to assist you with installation, while our standardized product designs can reduce your installed cost as well as your customers' maintenance and replacement costs.

Our in-house engineering and software capabilities allow us to design simple operator interfaces so the user can easily operate the heater correctly and achieve the desired result.



Custom Design and Manufacturing for Unique Requirements

If an element, sensor, or control that we carry in stock doesn't exactly fit your needs, we'll custom-build it—either by expertly adapting an existing product or by designing and manufacturing a completely new one. Our design engineers have won industry awards for innovation and rapid turnaround of custom designs. They bring expert knowledge in process engineering design together with a flair for innovation to recommend the best solution and help you produce prototypes in the shortest possible turnaround time.



Manufacturing That Leads the Industry

Chromalox maintains four state-of-the-art manufacturing plants in the United States, Mexico, Europe, and Asia. In the U.S., Chromalox has more than 325,000 square feet (30,000 square meters) of manufacturing and warehousing space in Utah and Tennessee. Our Soissons, France facility is 73,000 square feet (7,000 square meters).

Our manufacturing capability features computer-controlled, automated machinery to help achieve the highest in quality. With ASME welding capability in-house since 1953, Chromalox has gained more in-plant experience than any other electric heater manufacturer for high-quality welding. Our experience enables us to perform ASME welding at a level unsurpassed in our industry.

Broadest Third-Party Approval

Chromalox is the only manufacturer with extensive systems manufacturing in the U.S. and Europe. Approvals and certifications include, but are not limited to, CE, NEC, UL, VDE, cUL, FM, CSA, MSHA, BASEEFA, Cenelec, ASME, PED, ATEX, GOST, and ISO 9001:2008.



La Vergne, Tennessee



Ogden, Utah

BENCHMARKS OF THE INDUSTRY'S DESIGN AND ENGINEERING LEADER

- Chromalox produces 3,300 miles (5,400 kilometers) of tubular heating elements in North America alone . . . nearly the diameter of the moon
- Chromalox makes enough heating cable each year to stretch from the top of Italy to the tip of Sicily
- Chromalox employs more than 1,000 production personnel at 4 manufacturing plants on three continents
- Chromalox produces more than 3 million stand-alone items each year

MANUFACTURING LEADER