



### **GLOBAL COATINGS LEADERS™**

RIGHT PEOPLE · RIGHT PRODUCTS · RIGHT LOCATIONS

# CARBOLINE CAPABILITIES

Carboline is a global supplier of coatings, linings, and fireproofing with offices and manufacturing facilities worldwide.

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### HISTORY

# Solving our customers' problems is how we got started and after 70 years, it's still our focus at Carboline.

In 1947, Stanley Lopata developed a product to solve a problem for a single customer. After 70 years, problem-solving remains our focus.

Carboline is a global supplier of coatings, linings, and fireproofing with offices and manufacturing facilities worldwide. We have a strong commitment to the protective coatings industry and take an active role in professional organizations that focus on corrosion control, water transmission, and fire protection. We are committed to progressing science for the future of the coatings industry.

We also are committed to meeting our customers' needs and expectations by recommending products that provide the right solutions to their problems. This approach has gained the trust of global customers who rely on our high-quality coatings, linings, and fireproofing products. Our dedication to performance, broad industrial market experience, continuous investment in long-term product development and testing, and our ability to meet challenges anywhere in the world make us a source of coatings knowledge that customers find invaluable. However, we have never lost sight of what has taken us from our beginnings in Stanley's basement to a world-class supplier of high performance coatings: Solving our customers' problems drives our approach to everything we do.

1947

Founded in 1947 to solve a customer's corrosion problem

500+

More than 500 active products



Expansive global specification base

**40**+

Champions of more than 40 different coating technologies

### **GROWTH**



New, innovative product introductions every year



Market expansions through research and development



Technology growth from our dedicated research team



Geographic growth to better serve customers

## PEOPLE

# Our customers can be confident that behind every sale is a team of dedicated people determined to make it a success.

Carboline believes good service starts with good people. Our success is rooted in our team approach to business. Everyone working together as a team is the key to making sure customers' needs are being met at every level of the organization.

Our employees are some of the most well-respected members of the industry, many with top certifications and decades of experience. Wherever you are, we have experienced and knowledgeable people there, ready to support you.

# CUSTOMER SERVICE

Individual account management

Quick order entry process

Global coverage

# LOCAL SALES SUPPORT



Fast and reliable system recommendations



Solving your problems

# TECHNICAL SERVICE



Superior hands-on field support

On-location service available from start to finish

Highly trained industry experts



Send an email and receive a quick response



Call in and speak directly to knowledgeable support



# LOCATIONS

### Regardless of your location, we can deliver the products you need to protect your assets.

Carboline's world-class, global organization can supply products anywhere in the world to meet your requirements. With more than 20 manufacturing facilities around the globe, we can consistently produce and deliver high-quality products to our customers worldwide.

Our global network of industrial service centers and distribution points are strategically located around the world to provide the highest level of customer service and support for your project. Anywhere in the world, anytime you need us, we'll be there.

### **CARBOLINE LOCATIONS**



### **PRODUCTS**

### We develop products that solve real-world problems and offer real benefits.

Product development at Carboline is driven by a passion for performance and innovation. Our continued focus and understanding of our customers' needs drives product development.

All new products go through stringent internal and external testing. Rigorous product testing is meaningful, realistic, and based on decades of knowledge and experience. When a new product is released, we know it will perform.

Our comprehensive line of problem-solving technologies has earned the trust and confidence of customers around the globe. Technologies include water-based, 100% solids, and VOC-compliant formulations backed with extensive testing and multiple case histories. Whether you need corrosion protection, fire protection, chemical resistance, long-term weathering, color stability, quick-to-service, abrasion resistance, insulation, heat resistance, or immersion linings, we can deliver.

### PROBLEMS WE SOLVE



Protecting steel and concrete from corrosion, abrasion, and weathering



Shielding storage tanks from aggressive chemicals and corrosive high-temperature cargoes



Quick-to-service application with long service life and color retention



Over-coating existing finishes, marginally prepared surfaces, or wet/damp substrates



Protecting concrete from chemical splash and spillage for secondary containment areas



Providing passive fire protection for industrial and commercial applications

### **PRODUCT CERTIFICATIONS**

- ISO 9001-2000
- IMO (International Maritime Organization)
- UL (Underwriters Laboratories)
- FM (Factory Mutual)
- ANSI Standard 61/NSF
- NORSOK M-501 (Offshore Exposure)
- DNV (Det Norske Veritas)

- LRS (Lloyd's Register of Shipping)
- ABS (American Bureau of Shipping)
- ASME NQA-1 (Nuclear)
- NUPIC, 10 CFR 50 (Nuclear)
- Plus many regional and local certifications specific to potable water, bridge, food grade handling and processing, and other needs

# **MARKETS**

Carboline offers high performance coatings, linings, and fireproofing products for a variety of diverse markets. Each market has unique challenges that require unique products, which is why we have a specialized team of experts for every market we serve.



**COMMERCIAL MARINE** 



**FIREPROOFING** 



**PETROCHEMICAL** 



**POWER** 



**OIL & GAS UPSTREAM** 







**WATER & WASTEWATER** 



COMMERCIAL/ARCHITECTURAL



**BRIDGE & HIGHWAY** 



**PULP & PAPER** 



**RAIL** 



**METALS & MINING** 



**ORIGINAL EQUIPMENT MANUFACTURERS (OEM)** 

Carboglas Carbocoat Hard Carbo Carboguard

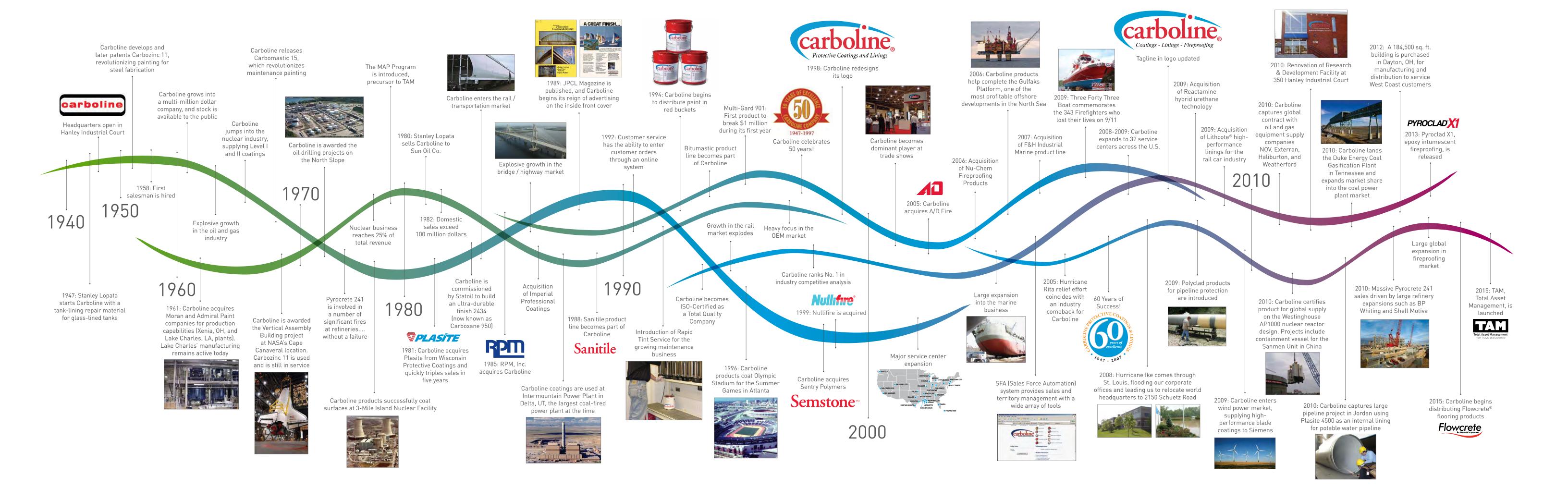
Pyroclad Reactamine Rueth Carbotherm

Carbotherm

Mediate Polyclad Pyrocrete Pyroclad Reactamine Rusthern Carbozinc **Phenoline** 

Bitumastic

··· Carbocrylic



### Carboguard

### Carbocoa

Bitumastic®

Carbocoat® Industrial alkyds

Carbocrylic® Water-borne acrylics

**Carboglas®** Flake-glass-polyester

Carboguard® Epoxy primers & finishes

> Carbomastic® epoxy mastics

**Carbothane**® Aliphatic polyurethanes

> Carbotherm® Insulative coatings

Carboxane® Jltra-weatherable finishes

Carbozinc<sup>®</sup>

Firefilm® -film intumescent

Phenoline®

Chemically resistant

Plasite®

Carbocoat

Polyclad®

Coatings & lir

Pyrocrete® High-density cement

Pyrolite® Low-density gypsum fireproofing

**Pyroclad**® The Ultra-durable epoxy intumescent fireproofin

Reactamine® polyurethane elastor

Rustbond® Penetrating sealers

Sanitile<sup>®</sup> Tile-like wall finishes & floor coatings

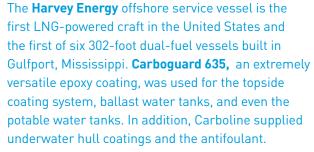
Semstone<sup>®</sup>s coatings for concrete

Thermaline<sup>®</sup> High-heat coatings

Thermo-Lag® Epoxy-based intumesce fireproofing

Thermo-Sorb® Solvent-based intume

Commercial Marine





# Our expertise in providing products and technical service to the marine industry is invaluable to our customers.

Carboline offers a comprehensive line of zinc primers, epoxy anticorrosives, high performance topcoats, IMO- approved ballast tank linings, and antifoulings that will provide service for up to 60 months. Our high-temperature coatings, interior primers and finishes, surface-tolerant coatings, and chemically resistant tank linings show the range of our ability to provide high-quality coatings for virtually any marine service requirement.



We offer coatings ideal to reduce the heat build-up on barge covers and decks caused by solar radiation while simultaneously protecting the cargo.

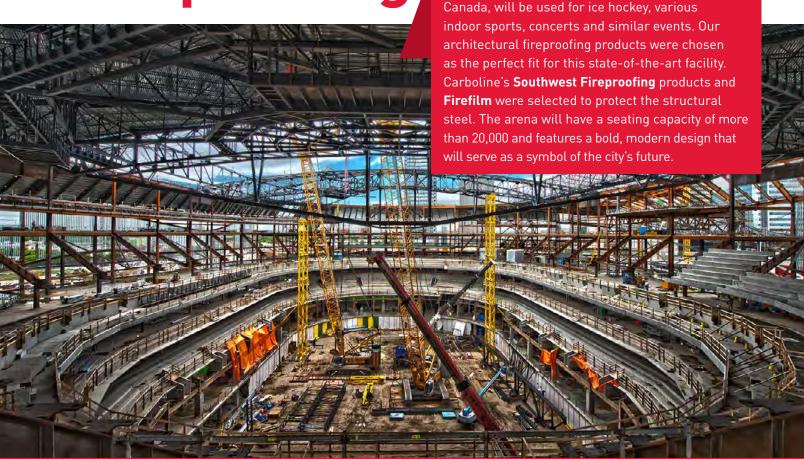


Anti-corrosive and antifoulant coatings are key in the marine industry. Good systems reduce hull cleaning costs and offer fuel savings by reducing friction.



Our linings offer long-term performance in what is considered "critical" service in cargo tank lining applications.





# Our fireproofing products have offered unparalleled protection for more than 40 years.

Carboline's complete line of commercial and industrial fireproofing products offers a level of unparalleled performance in several markets. With various types of intumescent and cementitious technologies designed for industrial or architectural applications, we can meet any project specification. All of our fireproofing products have been rigorously tested and have a proven track record of performance when subjected to the harshest environmental conditions and the extreme heat of fire exposure.



Our cementitious Sprayed Fire Resistive Materials (SFRMs) offer high performance for both concealed and exposed steel structures and assemblies.



This multi-use indoor arena in Edmonton, Alberta,

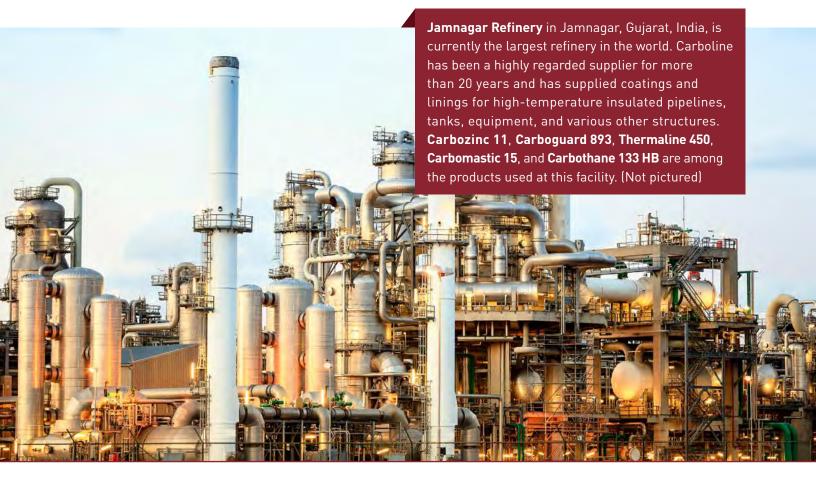
Our Intumescent Fire Resistive Materials (IFRMs) offer superior fire protection and high-quality aesthetics for commercial and light industrial projects.



Our products have been tested and certified to the highest industry standards. Testing includes multiple destructive exposures to mimic real-world conditions.

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## Petrochemical



### We have solutions for everything from structural steel and tank exteriors to processing, piping, and equipment.

Petrochemical facilities are continuously assaulted by corrosion and chemical attack, costing the industry billions of dollars annually. Carboline offers a wide selection of products to protect these assets, including; high-temperature coatings, tank linings, tank bottom repair, maintenance coatings, and industrial fireproofing.



We offer epoxy and cementitious fireproofing products that provide both hydrocarbon and jet fire ratings.



Tankage and tank integrity are top priority. We offer timetested linings, to cutting-edge polymers, thick film single coat to thin multicoat systems.



Our unique coatings provide an outstanding barrier against wet/dry and thermal cycling corrosive conditions often seen under insulation.

Power



### We offer a full line of coatings to protect against demanding conditions found in the power market.

Carboline offers coatings for conventional power, nuclear, and the renewable energy market. Carboline's coatings for new construction provide long-term protection against chemical, abrasive, high-temperature, and extreme atmospheric environments. Carboline has a full line of maintenance coatings that provide aesthetic value and extended corrosion protection for the aggressive in-service conditions present in the power market.



Coatings used on wind turbines are formulated for their specific needs. Turbine blades and parts are continuously moving and exposed to harsh weather and UV rays.



The **Thomas C. Ferguson Power Plant** is in

combined-cycle power plant is producing power for

We have a long history in the nuclear power industry. Our nuclear certified coatings are ideal for both new construction and maintenance.



Other types of energy coatings, like those used in the hydroelectric energy industry, require high levels of water immersion and abrasion resistance.

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# Oil & Gas Upstream

The **Johan Sverdrup** oil field is located in the North Sea, 87 miles (140 kilometers) west of Stavanger, Norway. It is one of the five biggest oil fields on the Norwegian continental shelf with production expected to begin in 2019. Carboline is supplying **Carboguard 1601 SG** and **Carboguard 878** for the jackets on the platforms. These products have more than 30 years of history in the oil and gas market. (Not pictured)



### We offer reliable solutions developed through years of experience in the complex oil and gas industry.

Carboline knows that owners and operators are under continuous pressure to reduce capital costs while meeting strict regulatory requirements. Offshore facilities, where maintenance is extremely difficult and costly, are expected to last 20 to 30 years. We offer proven high performance coatings, linings, and fireproofing products that stand the test of time in the harshest environments. In addition, Carboline has numerous NORSOK-approved systems.



Offshore atmospheric exposures are particularly aggressive due to the severity of constant UV radiation and salt-laden environment.



Epoxy intumescent fireproofing products provide both hydrocarbon and jet fire ratings for offshore structures.



Our coatings are excellent for splash zone areas, such as jack-up legs and semisubmersible hulls, or boat landing areas.

# Oil & Gas Midstream



# Protecting assets in the pipeline and terminals industry is part of who we are.

Carboline has provided solutions to the pipeline and terminals industry since our beginning. In fact, back in 1947, our first product was a tank lining. Today, we offer the widest array of coatings that provide proven protection for your company's assets. We have products for steel tank exteriors that can handle various corrosive environments (coastal and others) and tank linings with a proven history designed for the petroleum industry. We offer pipeline coatings that are easy to apply, both in the field and the shop.



We have solventfree epoxy tank linings designed to handle storage of crude oil, process liquids, and various fuels, including ethanol, jet fuels, and gasoline.



Pipeline linings provide protection against harsh corrosive chemicals, both above ground and underground, and work in extreme temperatures.



Protecting assets in the pipeline and terminals industry is part of who we are at Carboline.

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### Water & Wastewater



# We offer a variety of coatings and linings for the water and wastewater market.

Carboline can protect concrete and steel, from collection to treatment to storage. We are recognized as a leader in the coatings industries for providing proven systems that defend against corrosion caused by microbes and hydrogen sulfide. Our proven tank linings, secondary containment products, and concrete protection coatings stand up against the numerous challenges facing treatment facilities.



We offer exterior coatings that ensure a vibrant and clean appearance and exhibit ultraweathering durability.

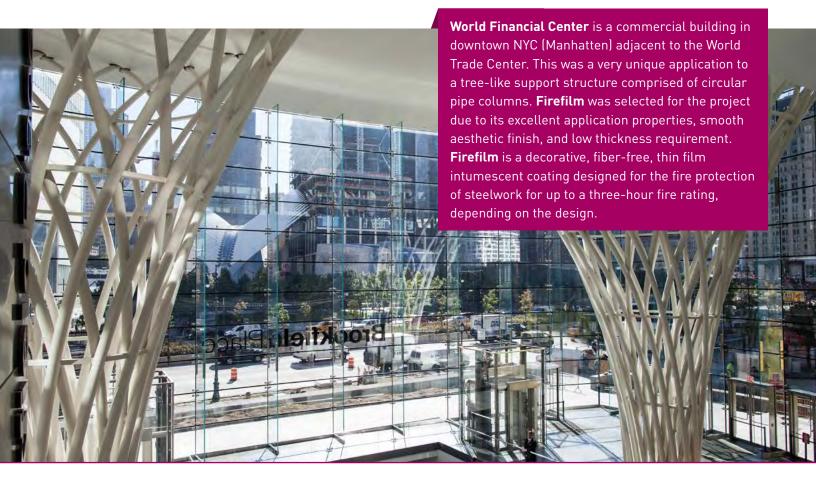


Our water tank linings utilize the safest polymers available, which offer the longest protection on the market. Both thick and thin film linings are available, based on your needs.



Secondary containment can be challenging, and we have systems that provide proper sealing and protection against the cracking of joints and junctions.

# Commercial/ Architectural



# We have the widest array of coatings, flooring, and fireproofing products for the complex commercial market.

Carboline can meet specifications for all building types, project requirements, and conditions with multiple product choices. We offer coatings, flooring, and fireproofing systems designed for every type of architectural construction, and can provide you with products that meet aesthetic requirements while inherently adding value, longevity, design flexibility, and corrosion protection.



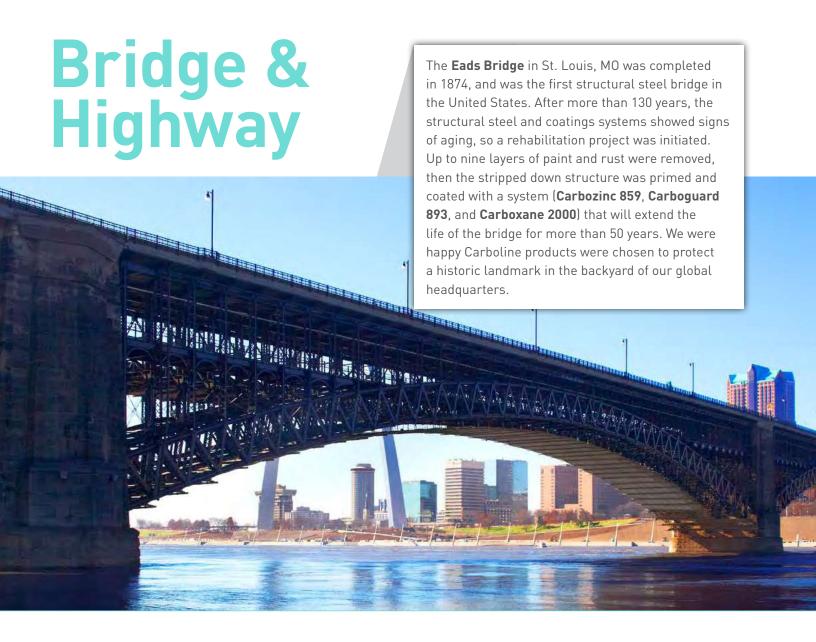
Our architectural coatings have the special requirements, to meet high design standards while also providing protection.



Our flooring systems have non-skid and antimicrobial elements when needed, and offer heavy foot traffic protection.



Places like airports, office buildings, and stadiums require fireproofing protection with design flexibility that our products provide.



# For more than 50 years, our bridge coatings have been the industry standard.

Bridge and highway coating systems have been a cornerstone of Carboline's business for decades. We offer a wide range of products for bridge maintenance, overcoating, and refurbishment. From coast to coast, our products continue to be the first choice in coatings for owners, specifiers, fabricators, and painters for both new construction and maintenance painting of bridges.



We offer VOC-compliant coating systems with infinite recoatability characteristics, which is excellent for future touch-up needs.



Bridge
maintenance is
very important,
and we have
mastics that
provide barrier
protection
and corrosion
resistance over
most existing
finishes.



Whether your project is shop or field applied, or requires low-temperature curing, we have a solution

# Pulp & Paper



### We have a long history of solving the needs of the pulp and paper industry.

Paper factories are one of the most corrosive environments, downtimes need to be kept short, and long-term coating and lining solutions are important. Our ultra-durable high performance coatings and system solutions have a proven record of corrosion protection. We have systems that cater to constructibility needs and project requirements, such as Class B slip coefficient, low-odor, zero VOC, and single-coat systems. Quick cure coatings are also available when shortened down times are required.



We offer coatings that protect against weathering, high heat, and chemical exposures found in paper factories.



Carboline has tank linings that protect against the very wet corrosive paper-making process, which uses acids and caustics.



Carboline has products to protect assets and increase longevity, including coatings for walls, steel, piping, towers, and flooring. Rail



### Our rail product line provides the most inclusive interior and exterior systems in the market.

Carboline offers a complete line of water-based, high solids and solvent-less technology primers, as well as low-temperature cure, DTM epoxies, and high performance topcoats for the exterior. We also have the most comprehensive selection of linings in the industry that have been tested in more than 4,000 commodities.



We have flexible, direct-to-metal (DTM) protective linings for rail cars. They are needed to keep the cargo pure and protect the steel from corrosive and abrasive cargoes.



We offer a wide range of exterior coatings that can provide fast cure times, high-gloss finishes as well as VOC and HAP's free coating systems.



Along with providing exterior protection against the elements, we have coatings with great color retention and varying gloss finishes.

# Metals & Mining



### We understand the challenges and stringent demands of the metals and mining industry.

Carboline is a proven supplier of chemical-resistant coatings for steel structures and equipment that must withstand aggressive chemicals, physical abuse, and abrasion. Our reputation is built on providing a complete range of high performance and ultra-durable maintenance coatings that meet the demands of the metals and mining industry.



Our coatings and linings help reduce downtime, maintenance costs, and will add years of service to equipment.



Using our coatings and linings helps protect assets at these facilities, and helps keep them operating efficiently.



It is critical for storage and transport equipment to withstand rough contents, and our coatings provide the necessary protection.

# Original Equipment Manufacturers (OEM) One OEM customer in Michigan C



# We produce high-quality systems designed to increase throughput at OEM shops.

Carboline has an extensive line of coatings that provide cost-effective alternatives for protecting and finishing OEM products, tanks, and equipment. Our broad selection of products is designed to help minimize VOC and HAP emissions as well as waste disposal. Our direct-to-metal formulations reduce labor costs, improve safety, increase production, and positively impact your bottom line. Our ability to offer high performance protection, corrosion resistance, and aesthetic value sets us apart from the competition.



We have been supplying cost-effective coating solutions to heavy industry fabricators for many years and know the importance of speed and performance.



Our OEM coatings are easy to apply and offer benefits that result from faster throughput, fewer repairs, repaints or callbacks.



Our new technologies allow extremely fast recoat times (often wet-onwet), which dramatically speeds the painting and curing process.

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We share information on projects like the ones featured in this brochure on social media. You can also find current information about trade shows, press releases, and other company news there.

Follow us, like us, connect and/or subscribe. We'd love to see you there!

**Facebook:** facebook.com/CarbolineCompany/

**LinkedIn:** linkedin.com/company/carboline-company/

Twitter: twitter.com/carboline

**YouTube:** www.youtube.com/c/carbolinecompanyusa



### **GLOBAL MANUFACTURING PLANTS**

#### CARBOLINE COMPANY

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#### ARGENTINA - BUENOS AIRES

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### AUSTRALIA - BRISBANE

7 PRODUCTION AVE ERNEST JUNCTION QUEENSLAND 4214 AUSTRALIA PHONE: +61 7 3287 0222 FAX: +61 7 5594 9093

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420 TAPSCOTT ROAD UNIT 5 SCARBOROUGH, ONTARIO M1B 1Y4, CANADA PHONE: 416-292-2361 FAX: 416-298-5887



#### CHINA - DALIAN

HOU SHI CUN, DA WEI JIA ZHEN JIN ZHOU DISTRICT DALIAN, CHINA 116110 PHONE: 86-411-8789-8441, 8442, 8443, 8444 FAX: 86-411-8789-8445

#### INDIA - CHENNAI

NO. 356 & 357 SIDCO INDUSTRIAL ESTATE AMBATTUR, CHENNAI 600 098 INDIA PHONE: 91-22-28500321 FAX: 91-22-28500323

### INDIA - MAHARASHTRA

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BHIWANDI WADA ROAD,
TALUKA WADA,
DISTRICT PALGHAR,
MAHARASHTRA

#### ITALY - ALGHERO

VIA MILANO 150 20093 COLOGNO MONZESE (MI), ITALY PHONE: 3902-25 3751 FAX: 3902-25 37560

### JAPAN - AMAGASAKI

TERAMOTO UNYU SOKO CO., LTD 17 MINAMIHATSUSHIMA-CHO, AMAGASAKI, 660-0833 JAPAN PHONE: 81-3-3643-4501 FAX: 81-3-3643-2951

#### MALAYSIA - KUALA LUMPUR

LOT 37631-37632 JALAN 6/37A TAMAN BUKIT MALURI INDUSTRIAL AREA KEPONG 52100, KUALA LUMPUR, MALAYSIA PHONE: 603-6277-9575 FAX: 603-6277-4645

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### SOUTH KOREA - BUSAN

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#### USA - DAYTON

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### USA - GREEN BAY

614 ELIZABETH ST GREEN BAY, WI 54302 PHONE: 920-437-6561 FAX: 920-437-8546

#### USA - LAKE CHARLES

900 OPELOUSAS STREET LAKE CHARLES, LA 70601 PHONE: 337-433-0605 FAX: 337-439-0380

### USA - LOUISA

321 DUKE ST. LOUISA VA 23093 PHONE: 540-967-5119 FAX: 540-967-5120

#### VENEZUELA - VALENCIA

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AVENIDA PRINCIPAL
GALPÓN "H"
VALENCIA EDO. CARABOBO
VENEZUELA
PHONE: 58-245-4000400
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