



CHEMCO PROVIDED CRACK INJECTION SERVICES ON A LARGE BRIDGE COLUMN IN GALVESTON, TEXAS.

# CONCRETE RESULTS

CHEMCO SYSTEMS PROVIDES CLIENTS WITH THE RIGHT SOLUTIONS FOR STRUCTURAL REPAIRS. **BY BRIAN SALGADO**

**ChemCo Systems goes beyond** merely providing epoxies for infrastructure applications. Instead, the company boasts the ability to provide unique solutions for these civil engineering challenges.

"We focus on delivering solutions for concrete repair, protection and

restoration to North American and international customers," Vice President John Bors says. "There are other larger companies that provide a broad range of construction-related chemicals. ChemCo's narrow focus is repairing concrete used in structural applications. These

projects can be challenging as they frequently involve older, existing structures sometimes lacking original drawings and in poorly maintained condition."

ChemCo Systems works with concrete repair specialists, general contractors, facility managers, building owners, manufacturers, utilities, departments of transportation, airports and universities.

Frequently, the nature of the work is unique and is conducted under extremely short timelines. In some cases, detailed consultation is required between ChemCo and

architects or structural engineers to develop a repair specification.

A rapidly growing trend in urban areas is sometimes referred to as brownfield redevelopment – instead of tearing down old structures, often they are repurposed. For example, an industrial building may be converted to an office or a warehouse to a network data center. This “green” trend to reuse existing structures has dramatically increased the need for ChemCo’s materials. This is because walls may be moved, floors may bear loads differing from original design or there is a need for upgraded requirements due to adopting a more stringent building code.

The company services its clients through its Kemko®-approved applicator program, a group of specialty concrete repair contractors that have undergone training at ChemCo headquarters in Redwood City, Calif. These Kemko applicators use a single source integrated and complete system of products and equipment all supplied by ChemCo. On larger or technically challenging projects, the applicators can contact others in the network to borrow expertise and additional labor.

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“Instead of supplying one or two of everything across all categories of products, we can offer six to 10 choices of performance-leading products in a select category such as epoxies for crack injection,” Bors says. “Third-party engineers, architects and owners are very appreciative of our patience and technical

background in responding to unique repair challenges in all types of structures.”

#### **VAST EXPERIENCE**

When Adhesive Engineering (AE) – a pioneering company in the development of epoxies for use in the aerospace and civil engineering applications – was sold and absorbed by another company, ChemCo was formed by six former top AE managers in 1993. AE is credited with developing and commercializing the process of using two-component structural epoxies in conjunction with automatic metering application

equipment to repair concrete.

In 1959, two AE managers – one of whom continues at ChemCo – traveled in a station wagon to the Sierras in an attempt to repair damaged concrete in a hydroelectric dam owned by Pacific Gas and Electric. They used liquid epoxies and some pumping equipment and attempted to inject a mixture into spalled and cracked areas of the dam. Even though their initial attempts failed to correct the problem, they were invited back several months later and found success.

“The concrete in the repaired area of the dam was sampled by drilling test cores,” Bors says. “Subsequent »



» lab analyses proved that it could be restored to its original monolithic strength with this innovative civil engineering restoration.

“An extensive and costly demolition and reconstruction of portions of the dam was avoided.”

This history of innovation is the basis of ChemCo’s reputation as an industry leader, which has been in place since its incorporation in 1993. “Creating new formulations and adjusting to unique specifications is a service we offer routinely to our customers,” Bors explains. “Most contractors and engineers know that no other company in our industry can provide this service.

“With formulation, testing and engineering records in our file cabinets dating back to the early days of AE, we have likely solved most challenging applications previously and can access these records quickly for reference,” he adds.

#### ‘HAPPY TO HELP’

ChemCo encourages its customers to challenge the company with unusual applications, extreme environments, difficult repairs and custom formulations.

Indeed, customers won’t get the runaround when they call ChemCo for help. With project case files dating back 60 years, it is unlikely that a customer can describe a situation ChemCo hasn’t encountered over the course of its history.

“We’re happy to help with writing a repair specification, consult on the merits of alternate technical approaches or even create a test and custom product to fill a one-time need,” Bors adds. “Fifty percent of our staff is an engineer or scientist – our practice is that no customer who calls for technical information will be transferred more than one time.”

Even when ChemCo cannot provide an in-house solution for a client’s specific problem, the company rou-

tinely refers clients elsewhere.

“Our reputation is based on our company culture which emphasizes our experience and integrity,” Bors explains. “Our customers – many of whom have been with us for more than one generation of their ownership – know we will send them to the best alternate source if we don’t have the right product.”

The company says it has not received a single return of product for quality or performance reasons since moving into its current facility in Redwood City in 1998.

All of its products are zero VOC, contain no solvents or toxins and can be applied to LEED credits. In addi-

**“ENGINEERS, ARCHITECTS AND OWNERS APPRECIATE OUR PATIENCE AND TECHNICAL BACKGROUND IN RESPONDING TO UNIQUE REPAIR CHALLENGES.”**

#### WORKING WITH ‘FAMILY’

It is one thing to boast of relationships with clients that have resulted in repeat business over the decades. However, in the case of Watertight Restoration Inc. of San Francisco, ChemCo’s employees are more like members of the family owned business than consultants.

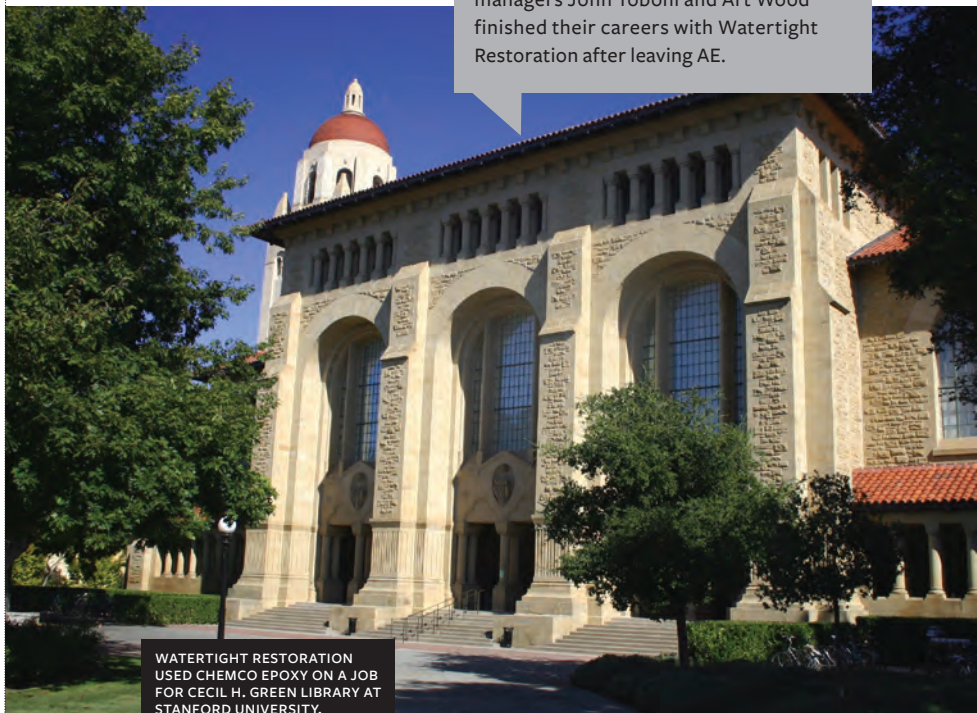
“At this point, our relationship with the ChemCo people is like family,” says Leonard Korinek, president of Watertight Restoration.

ChemCo and Watertight Restoration have joined forces on numerous projects, including the Cecil H. Green Library at Stanford University. Between October 1997 and January 1999, Watertight Restoration repaired epoxy injections of shotcrete that had been improperly done, leaving voids inside.


Watertight Restoration drilled on a 2-foot pattern and tested with compressed air to confirm the existence of all air pockets within each core hole, then injected these voids with ChemCo epoxy. Korinek explains that this project also required drilling from the inside into the exterior stones, followed by adding epoxy anchors from behind.

“That is why we lease ChemCo pumps and use their epoxy to this day,” Korinek says. “They offer the most comprehensive choices of epoxies and the best engineered equipment in the industry.”

Watertight Restoration’s history with ChemCo dates back to the days of Adhesive Engineering, Korinek admits. Korinek’s son Vern worked for AE, and managers John Toboni and Art Wood finished their careers with Watertight Restoration after leaving AE.



WATERTIGHT RESTORATION USED CHEMCO EPOXY ON A JOB FOR CECIL H. GREEN LIBRARY AT STANFORD UNIVERSITY.



FREYSSINET USED CHEMCO PRODUCTS TO REPAIR ROOF SUSPENSION CABLES IN THE ALAMODOME IN SAN ANTONIO.

**“IF THERE IS A CRITICAL NEED FOR TECHNICAL SUPPORT, OUR CUSTOMER KNOWS HE CAN GET IT RIGHT THE FIRST TIME BY CALLING US DIRECTLY.”**

applications without incurring the delays of outsourcing. “Our ability to formulate new products, evaluate difficult application conditions or research corrosive or underwater environments is not delayed by external testing,” Bors stresses.

The company also offers extensive training at no charge to specialty contractors that want to become Kemko-certified applicators.

Applicators are required to train with the company and offer customers a complete single-source system so there is no finger pointing between multiple manufacturers in the event of a problem.

“We replace critical epoxy injection pumps of our applicators every six years to avoid aged, failing equipment in the field,” Bors explains. “Our contractor customers remain with us for long periods of time – many are in their second generation of ownership.”

Through its applicator network, ChemCo can sell its products directly to the end-users. “This allows for the improved efficiency of direct shipping by eliminating the need for intermediary distributors and related costs including extra shipping,” Bors states.

“If there is a critical need for technical support, our customer knows he can get it right the first time by calling us directly without having to work through channels,” Bors says. “We won’t compromise on making product switches for convenience or merely because of excess stock of the wrong item.” **mt**

## REMEMBER THE ALAMODOME

One of ChemCo Solutions’ numerous satisfied clients is Freyssinet Inc., an international civil engineering company with U.S. headquarters in Sterling, Va. Freyssinet utilized ChemCo’s products when inspecting and repairing roof suspension cables in the Alamodome in San Antonio.

Basilio Gaoat Jr., senior project manager with Freyssinet, says his company called on ChemCo because of its quality technical support and competitive price. Gaoat says he first contacted ChemCo through a referral for another project involving a complex bridge repair in Oregon in 2007.

The Alamodome project required injection of corrosion-protection epoxy on the heads of the anchors of the roof suspension cables. Freyssinet selected Kemko 240 because it complied with the project’s unusual specifications – after ChemCo had quickly made some formulation modifications – its competitive price and ChemCo’s ability to deliver material quickly with last minute notice.

Gaoat says Freyssinet – which specializes in structural repairs as well as specialty engineering and construction – definitely appreciated ChemCo’s responsiveness and will remain a loyal customer on future projects.

tion, ChemCo notes it is extremely proud of its employee safety program and has not had a lost-time accident since its inception.

## CUSTOMER SERVICE IS KEY

Along with expertise in its key markets, ChemCo Systems separates itself from the competition through a commitment to customer service. Approximately 85 percent of the company’s products are shipped the same day they are ordered.

“We are a responsive company focused on all aspects of customer service,” Bors says. “We understand that many of our specialty contractors and their customers are under tremendous time pressure to perform a critical repair overnight, over the weekend, during holiday shutdowns or between shifts, so our shipping department is adept at last-minute deliveries – whether by truck, ocean, air or courier.”

ChemCo owns and operates its own physical, chemical and environmental testing equipment and can simulate most extreme product