EUROPE SPECIAL

MANUFACTURING
TECHNOLOGY INSIGHTS

ISSN 2644-2493

MANUFACTURINGTECHINSIGHTS.COM

CORROSION
EDITION

ISSN 2644-2493
9 772644 249008

Manufacturing Technology Insights
(ISSN 2644-2493)

Published from
600 S ANDREWS AVE STE 405,
FT LAUDERDALE, FL 33301

www.manufacturingtechnologyinsights.com

Massenberg

The Masters of Corrosion Engineering

"Hergestellt in Deutschland."

A phrase that translates to "Made in Germany" is one of the most respected and recognised seals of quality globally today.

Germany is renowned across the world for its engineering prowess, especially when it comes to industries like automobiles, aircraft, and electronics. But a lesser-acknowledged fact is that the German facilities, warehouses, power plants, and refineries—on which the country's exquisite manufacturing industry depends—are as remarkable as its final products. Therefore, to protect their overall structural integrity, the facility owners take extra precautions for incorporating the best corrosion control methods and maintenance and repairing techniques. And this is exactly what Massenberg—a trailblazing German company—helps its country's prestigious manufacturing industry achieve.

As one of Germany's most prominent corrosion protection and concrete repair service companies for more than 100 years, Massenberg serves some of the biggest industrial clients across the country. The company's services—ranging from concrete repair and corrosion prevention to cathodic protection and painting—are lauded as cutting edge and industry-leading. The credit goes to the company's innovative equipment, methodologies, and an extremely skilled workforce.

Why Should You Choose Massenberg?

The industrial sector, being the cradle of innovation and technical change, has always occupied an extraordinary position in the global business landscape. Right now, amidst intensifying industrial processes of the 21st century, the number of industrial constructions is increasing by the day. Most of these plants are built with reinforced concrete, owing to their durability and strength—to last centuries—compared to other materials. However, reinforced concrete leverages steel bars (rebar) for imparting flexibility (tensile strength). Unlike stainless steel (which leverages chromium to prevent the reaction of iron and rusting), the steel used in construction is more vulnerable to the influence of moisture and pollution, especially chlorides. And when the moisture or pollutants react with the iron present in the steel alloy, it leads to iron oxide (rust) formation. This rust expands and exerts stress on the concrete itself, causing it to crack or chip, thus affecting the overall integrity of the structure.

"Until now, organisations have dealt with this challenge by repairing the concrete or providing additional reinforcement whenever required," says Heiner Stahl, managing director at Massenberg. "But the only problem is, the facility owners have had to depend on a multitude of service providers, each specialising in different aspects—repair, reinforcement, or coating—to receive the desired maintenance of their manufacturing plants." Not only does this approach reduce the transparency and accountability of the task, which definitely is a serious blow to the quality of maintenance services, but the fragmented approach also makes it impossible for manufacturing clients to coordinate between the vendors.

What the industry needs is a provider that can offer all the different maintenance and reinforcement services under one wing. Enabling just that is Massenberg. The company is not only uniting the siloed construction maintenance services but also incorporating innovative equipment and techniques to make their repair and reinforcement outcomes more durable and long-lasting.

Take the company's crack injection service, for instance, wherein the company leverages unique epoxies and foams based on polyurethanes to effectively fill any cracks in the industrial structures. It prevents further deterioration of the concrete, and, at the same time, stops the possibility of water or other fluids from passing through the concrete, ensuring its longevity. Equally noteworthy is Massenberg's spray mortar service, which it leverages to repair complex concrete structures that have undergone degradation and cannot be fixed using conventional means.

> **"The company's services—ranging from concrete repair and corrosion prevention to cathodic protection and painting—are lauded as cutting edge and industry-leading**

Stahl also sheds light on the company's unique cathodic corrosion protection (KKS-B). This is a long-term solution for curbing the corrosion of steel reinforcements, and is especially suitable for concrete structures. In this method, the rebars within the concrete are made to act as cathodes, while anodes (usually mixed titanium oxide) are distributed across the concrete surface. So, whenever the concrete or its steel reinforcements are in danger of corroding, the corrosion process is contained by an externally-impressed current (which is in the range of a few milli-Amperes) between the anodes and the steel reinforcement. As a result, clients do not have to worry about constant repairs or maintenance operations for their infrastructures.

Illuminating the Path to Success

Owing to such exceptional capabilities, Massenberg has enabled a multitude of

organisations to enhance the structural integrity of their assets. A case in point is a client that was seeking to renew the corrosion protection on one of its mine access towers, which was in the meantime used to access a storage facility for radioactive wastes. Since the coating process had to be conducted with the utmost care without compromising the storage facility operations, the client chose one of the most reliable service providers in Germany, Massenberg. With its advanced equipment and scaffolding designed for complex structures, the company was able to perform a quick and seamless coating operation without breaking a sweat, all the while ensuring a complete protection coverage.

This is but one of the many success stories; Massenberg has been penning hundreds of such instances over the last 100 years of its glorious existence. Owing to the respect and recognition it possesses in the industry, the company has also taken an active part in the International Standardisation Organisation's (ISO) program to revise the international standard for corrosion protection. This is a testament to the massive impact that the company has had, and still has, on the industrial landscape.

In the next step of its innovation journey, Massenberg seeks to incorporate new coating systems leveraging sustainable solvents. Also, with the shortage of blasting material due to the shutdown of coal-fired power plants, Massenberg is looking for new alternatives to fill this gap. Alongside these, the company is steadfastly expanding its footprint across Europe, helping new clients augment their innovative corrosion prevention capabilities. The company will keep on improving its services and pushing the boundaries of possibility. The future, therefore, shines bright for the company.