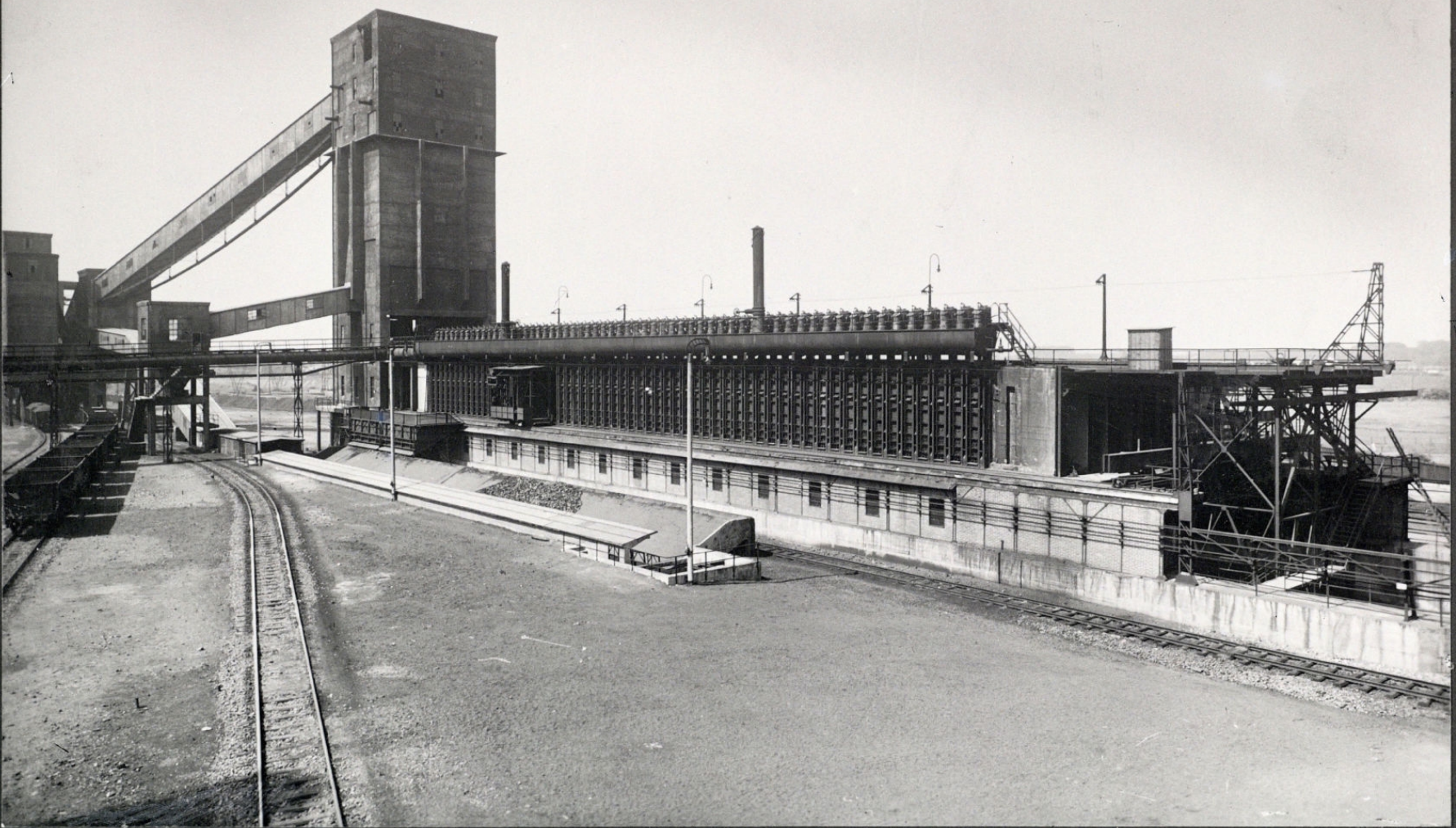




thyssenkrupp

Insights _Uhde



A powerful past, present and future: Coke plant technologies at Uhde

When Carlos Otto founded Dr. C. Otto & Comp. in 1872, he had no idea that 150 years later, Germany's entire coke plant engineering and construction business would be part of the company founded in 1921 by Friedrich Uhde, a former Dr. C. Otto & Comp. employee. Dr. Carlos Otto

farsightedly foresaw the profitable utilization of the by-products of coke-making. Today, this part of thyssenkrupp Uhde's portfolio enables production of climate-friendly chemicals.

Uhde's coke plant technologies have a proud pedigree featuring the most famous names in coke plant engineering. Carl Still and Heinrich Koppers, both junior engineers at Dr. Otto & Comp., went on to form their own highly successful companies in 1898 and 1901. In the 1970s and 1980s the firms founded by these coke-making pioneers were taken over by Thyssen (Still, Otto and Didier) and Krupp (Koppers). The merger of the Thyssen and Krupp groups led to the amalgamation of all the coke-making activities in ThyssenKrupp EnCoke in 1999 and then thyssenkrupp Uhde in 2004. Although Friedrich Uhde died in 1966, his personality is still alive in thyssenkrupp Uhde's corporate culture: the courageous drive to excel, the insistence on quality and reliability, and the desire to find smart ways to overcome obstacles.

Coke plants and much more

150 years of experience and expertise are reflected in thyssenkrupp Uhde's present-day coke plant technologies, with their main focus on EP or EPC services. The core business continues to be the design and construction of high-performance coke plants worldwide – with whichever technology the customer wants: slot-type, heat recovery, vertical chamber or stamp charge coke oven batteries, wet quench systems, EnviBAT single oven pressure regulation systems, and COKEMASTER automation solutions. By using these technologies, customers can not only be sure of producing high-quality coke but will also benefit from improved cost efficiency and environmental compatibility in their production process. Other advantages of working thyssenkrupp Uhde include a high degree of flexibility through a broad range of proprietary technologies and a customized solution for every section of a coke plant.

Extensive spectrum of services

The thyssenkrupp Uhde service portfolio includes plant concept development, feasibility studies, greenfield projects, battery heat-up services and battery pad-ups, battery heat wall and flue-hot repairs, quench tower refitting with emission reduction equipment, and an extensive after-sales service. Coke plant operators are also profiting from thyssenkrupp's expertise in digitalized functions and features. What's more, every coke plant technology or service thyssenkrupp Uhde offers is focused on enhancing operational efficiency and minimizing emissions to the greatest possible extent.

From profitable recovery of by-products towards climate protection

A clear line of contextual cohesion runs from Dr. Carlos Otto to thyssenkrupp Uhde's current gas treatment portfolio. Dr. Otto first saw the profitable potential of coke-making by-products; thyssenkrupp Uhde offers a broad range of gas treatment plants. Numerous by-products such as sulfur, benzene, tar, hydrogen or methane can be recovered from coke oven gas and then used to produce ammonia or methanol, for example. By means of amine scrubbing, these gas treatment solutions form the basis for innovative projects such as Carbon2Chem® with its promising potential for climate-neutral, clean chemicals as well as selective CO₂ separation of industrial flue gases, also known as carbon capture.



New coke oven battery

The bottom line: thyssenkrupp Uhde's DNA has been shaped by the innovative engineering mind and entrepreneurial spirit that characterized Carlos Otto and Friedrich Uhde as they set up their own firms 150 and 101 years ago. Today's workforce is determined to keep their pioneering spirit alive at the only company in the world to offer, supply and commission coke oven plants of a wide variety of designs from a single source – and to work on emission reduction and climate protection.
