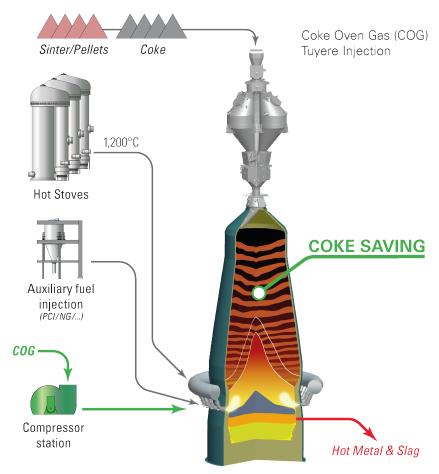


## PRESS RELEASE

Luxembourg, September 08, 2020

## Paul Wurth books new order for Coke Oven Gas Compression and Injection Technology at HKM



Tuyere COG injection concept.

With the aim to improve the  ${\rm CO}_2$  balance of their steel plant operations located at Duisburg Huckingen in the

Ruhr region in Germany, Hüttenwerke Krupp Mannesmann GmbH (HKM) has chosen Paul Wurth S.A. for engineering and construction of a coke oven gas (COG) compression and injection system for their two blast furnaces "A" and "B".

The new injection system will complement the already existing natural gas (NG) injection system, which was taken into operation in 2003 respectively in 2005 as well as the existing pulverised coal injection (PCI) system, which was commissioned in 2009. The new COG injection system will provide up to 30 000 Nm<sup>3</sup>/h of COG per blast furnace. Injection of mixed COG and NG of up to 60 000 Nm<sup>3</sup>/h per blast furnace will be possible.

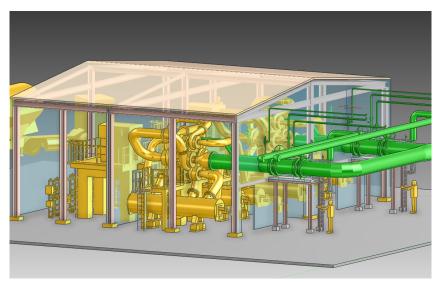
The corresponding plant will be installed in a brownfield area in the existing steelworks. Aside of all engineering, the order foresees supply, erection and commissioning of two compressors of geared turbo type, an appropriate noise insulated housing for the compressor station and all process piping for the supply of the COG up to the (2 x 30) hot blast tuyeres of the blast furnaces. Civil works will be executed by HKM. Start of commissioning activities is envisaged for the last quarter of 2022.

HKM operates an integrated steelworks consisting of a sinter plant with a design capacity of 6 mtpy, two coke oven batteries for a design capacity of 2.32 mtpy, blast furnaces "A" and "B" with a combined design capacity of 5.2 mtpy of hot metal, and a BOF steelmaking shop with continuous casters. With around 3 000 employees, HKM produces about 4 million tons of steel per year, which comes in the form of slabs and round blooms for the tube and pipe industry. The level of savings may vary depending on the availability of COG and the price of CO<sub>2</sub> certificates within the European carbon emissions trade scheme. In any case, HKM will significantly reduce the carbon footprint of their integrated steelmaking plant.

For HKM and for Paul Wurth, the present project is an important confirmation of both company's leading position in readily available technologies for CO<sub>2</sub> emission reduction from blast furnace operations.

## About Paul Wurth

Headquartered in Luxembourg since its creation in 1870, the Paul Wurth Group is an established technology provider for the primary stage of integrated steelmaking. Paul Wurth is a leading market player for the design and construction of complete blast furnace and coke oven plants. Direct reduction plants, environmental protection solutions and recycling technologies complete Paul Wurth's product portfolio. With more than 1,500 employees and entities in around 20 countries, the Paul Wurth Group has a strong presence in the significant iron and steel regions of the world.



COG compressor station.

SMS group is a group of companies internationally active in plant construction and mechanical engineering for the steel and nonferrous metals industry. It has some 14,000 employees who generate worldwide sales of more than EUR 2.9 billion. The sole owner of the holding company SMS GmbH is the Familie Weiss Foundation.