

### **Top-quality surfaces for the automotive industry: thyssenkrupp starts operation of new walking beam furnace at the Duisburg site**

- New unit ensures optimized surface qualities
- Customers mainly from the automotive industry
- Less energy consumption and greater energy efficiency
- First implemented investment under Strategy 20-30
- Investment in the mid double-digit million range

**Duisburg, November 8, 2022.** thyssenkrupp Steel has completed a new state-of-the-art walking beam furnace at the Duisburg site. The most important advantage of the new unit is a further improvement in the surface quality of premium sheet, such as that required for the outer panels of cars. The new furnace also sets standards in energy consumption and energy efficiency. The new unit was installed by Tenova LOI Thermprocess, the international technology leader for heat treatment processes. The investment volume of this first project to be completed under Strategy 20-30 is in the mid double-digit million range.

#### **State-of-the-art technology ensures higher quality as customer requirements increase**

The Steel Strategy 20-30 focuses on the targeted optimization of the production network and a systematic alignment of the product portfolio to future markets and profitable steel grades. These include, for example, multiphase steels, lightweight steels and grades with high surface quality, as well as steels for electric mobility.

Dr. Heike Denecke-Arnold, Chief Operations Officer (COO) at thyssenkrupp Steel: "With the new walking beam furnace, we are meeting the increasing demands of our automotive customers for optimum surface qualities. By gently heating the slabs in the new unit, we create the conditions for top quality along the process chain through to the end product, right from the hot strip mill. The new walking beam furnace is thus an important building block in our Strategy 20-30 for the targeted optimization of our production network."

## Optimization of hot strip mill 2 with an additional walking beam furnace

With the new walking beam furnace, avoiding surface defects starts right from when the slabs are reheated. Only walking beam furnaces are able to move slabs gently through the furnace by means of a lifting and lowering device, without damaging the underside surface of the slab. This virtually eliminates underside damage, and the slab spacing also ensures more homogeneous slab heating. In conventional pusher furnaces, on the other hand, the slabs are pushed through the furnace to be reheated for the rolling process, which can result in scratches. Thanks to the new walking beam furnace, the high and increasingly demanding quality requirements of the automotive industry can continue to be met in the future.

Christian Schrade, Managing Director of Tenova LOI Thermprocess: "With the commissioning of the new HBO5H, thyssenkrupp Steel has the latest technologies in the field of reheating furnaces for slabs. State-of-the-Art heating technology allows for the use of in-factory production of mixed gas. This already reduces the carbon footprint by more than 20 % compared to the use of natural gas. The burners can already be operated with up to approx. 60 % hydrogen and can be converted to operate with 100 % hydrogen in just a few steps, which then results in no CO<sub>2</sub> emissions. The intelligent allocation of the heating zones allows maximum production flexibility. The use of safety-logic controls taking into account the latest standards and norms, as well as a careful selection and use of refractory materials enable a long furnace life."

Hot strip mill 2 at the Duisburg location is one of the biggest and most modern plants of its kind in Europe. With a capacity of around five million metric tons, it mainly serves the European automotive industry with quality flat steels for various applications.

## Key data on the walking beam furnace

Overall dimensions of the furnace: 80 m long and 20 m wide

Overall dimensions of the heating surface: 54 m long and 11 m wide

Total weight: 6,700 tons (for comparison: more than half of the Eiffel Tower in Paris)

Capacity: approx. 300 slabs per day (corresponds to approx. 5,000 cars in 24 hours)

Contact:

thyssenkrupp Steel Europe AG

Public & Media Relations

Geraldine Daniels

T: +49 203 5226732

[geraldine.daniels@thyssenkrupp.com](mailto:geraldine.daniels@thyssenkrupp.com)

[www.thyssenkrupp-steel.com](http://www.thyssenkrupp-steel.com)