

WORLDWIDE

MULTIFLEX-QUENCH® IN PLATE COOLING PROCESSES

In heavy-plate heat treatment lines, the MultiFlex-Quench® offers flexible cooling strategies. SMS group presents these innovative strategies at ESTAD.

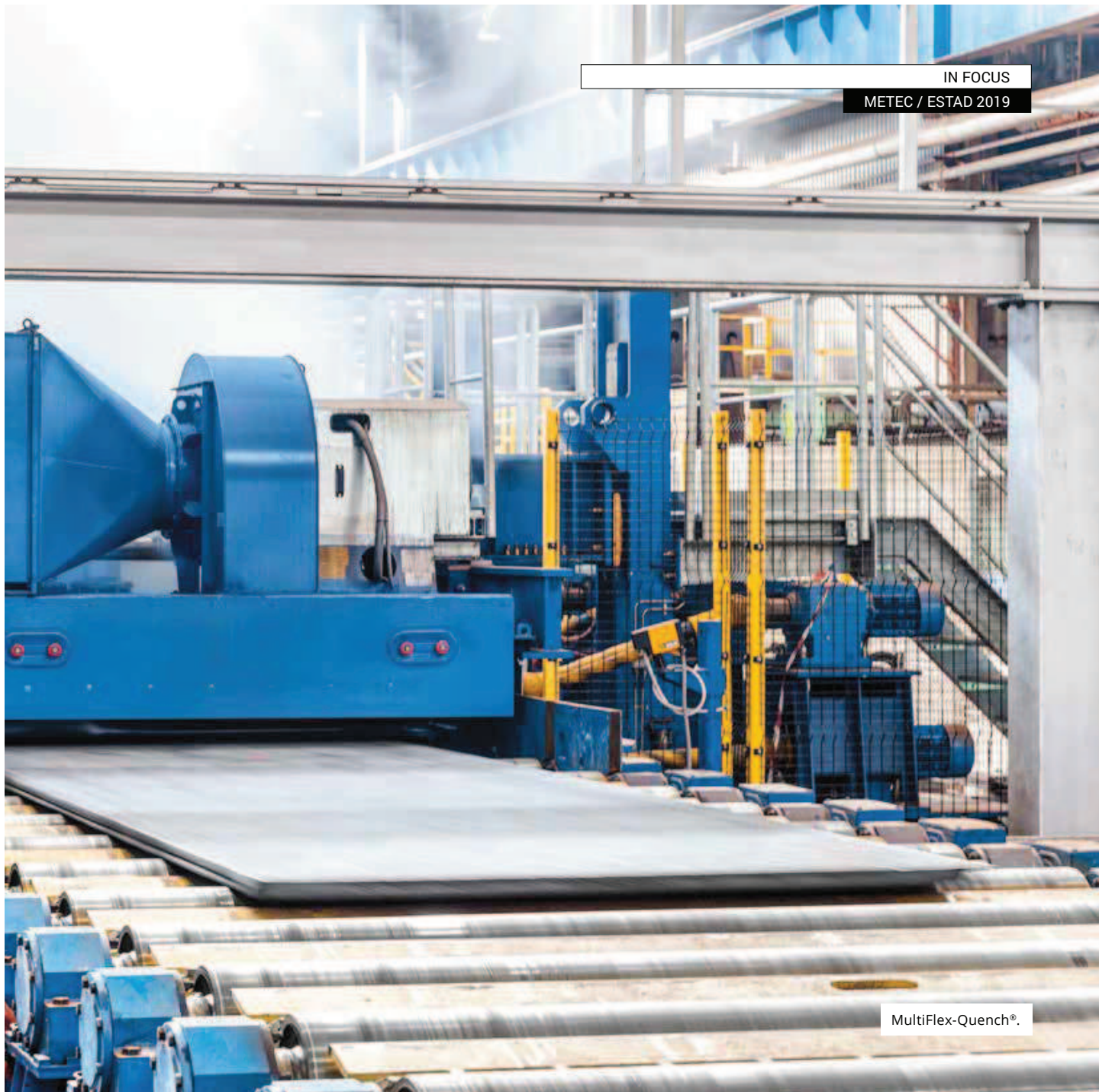
Under the name MultiFlex-Quench® SMS group introduced to the market a new technology for the cooling of plates in heat treatment plants. Flexible cooling strategies permit standard and special materials as well as newly developed materials with high quality requirements to be produced.

In 2016 already, the new MultiFlex-Quench® in the works of Acroni in Jesenice, Slovenia, produced the first tempered plate. To this customer SMS group had supplied a completely new heat treatment line for an annual production of 80,000 tons of heavy plate. At the beginning of 2020, the new heat treatment line of Ilsenburger Grobblech GmbH, a subsidiary of Salzgitter Group, will start to operate. The ca-

capacity of this line will be more than 200,000 tons per year. The MultiFlex-Quench® will then be operating in the two most advanced heavy-plate heat treatment facilities.

QUALITY FOR DEMANDING APPLICATIONS

The plates produced are used for highly stressed steel structures such as mobile cranes, in the vehicle construction sector and for building pressure vessels and pressure pipes. Another field of application are wear-resistant steels as used in the steel industry, for mining machines and in cement plants.



MultiFlex-Quench®.

At the same time, these applications push the advancement of steels as they have to combine increasing strength with excellent ductility and good weldability with perfect flatness.

One prerequisite for the production of state-of-the-art heat-treated plates is that all process parameters can be flexibly set, from austenitization to targeted cooling at optimized cooling speeds and further to adapted tempering temperatures. Only if all process stages are perfectly harmonized, will it be possible to tap the full potential of the material steel that is in demand worldwide.

The paper presented at ESTAD considers different aspects of the new technology for plate cooling, including the

development of the new cooling technology, numerous options of flexible cooling, model and process development as well as operation results from and experience with the pilot plant. ♦

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