



A NEW DIMENSION IN QUALITY

CC4 Continuous Caster



INNOVATION BY TRADITION.

Our expertise as a steel manufacturer is based on over 140 years of technical experience.

Whether in the mobility sector, the energy industry or the railway infrastructure sector, ever greater demands are being placed on the quality and durability of the materials used.

Our consistent orientation of the entire value chain to quality in manufacturing has enabled us to provide our customers with future-oriented and high-performance products.

SUPER CLEAN IS THE NEW STANDARD

The new CC4 continuous bloom caster, the centerpiece of steel production in Donawitz, is currently the most modern system of its kind in the world and fully meets the standards of Industry 4.0. It combines globally unique state-of-the-art plant and process technology that enables us to further increase quality while producing steel grades for the most demanding applications.

| FACTBOX | |
|----------------------|---|
| Capacity | 1 million tons per year |
| Casting speed | up to 1.7 meters per minute |
| Casting sizes | 440 x 330 mm, 360 x 270 mm and round section diameter of 230 mm |
| Quality | wide product range with a high level of purity and homogeneity |

FULLY DIGITIZED CASTER

The CC4 allows the continuously cast blooms to be manipulated and loaded automatically in a fully automated production process.

“The high degree of digitization in the casting line allows us to more precisely control important parameters such as product purity and homogeneity in order to more effectively meet the specific demands of our customers.”

Successful operation of the caster and the high product quality we have achieved in casting are primarily due to the unique metallurgical expertise of the employees in Donawitz.”

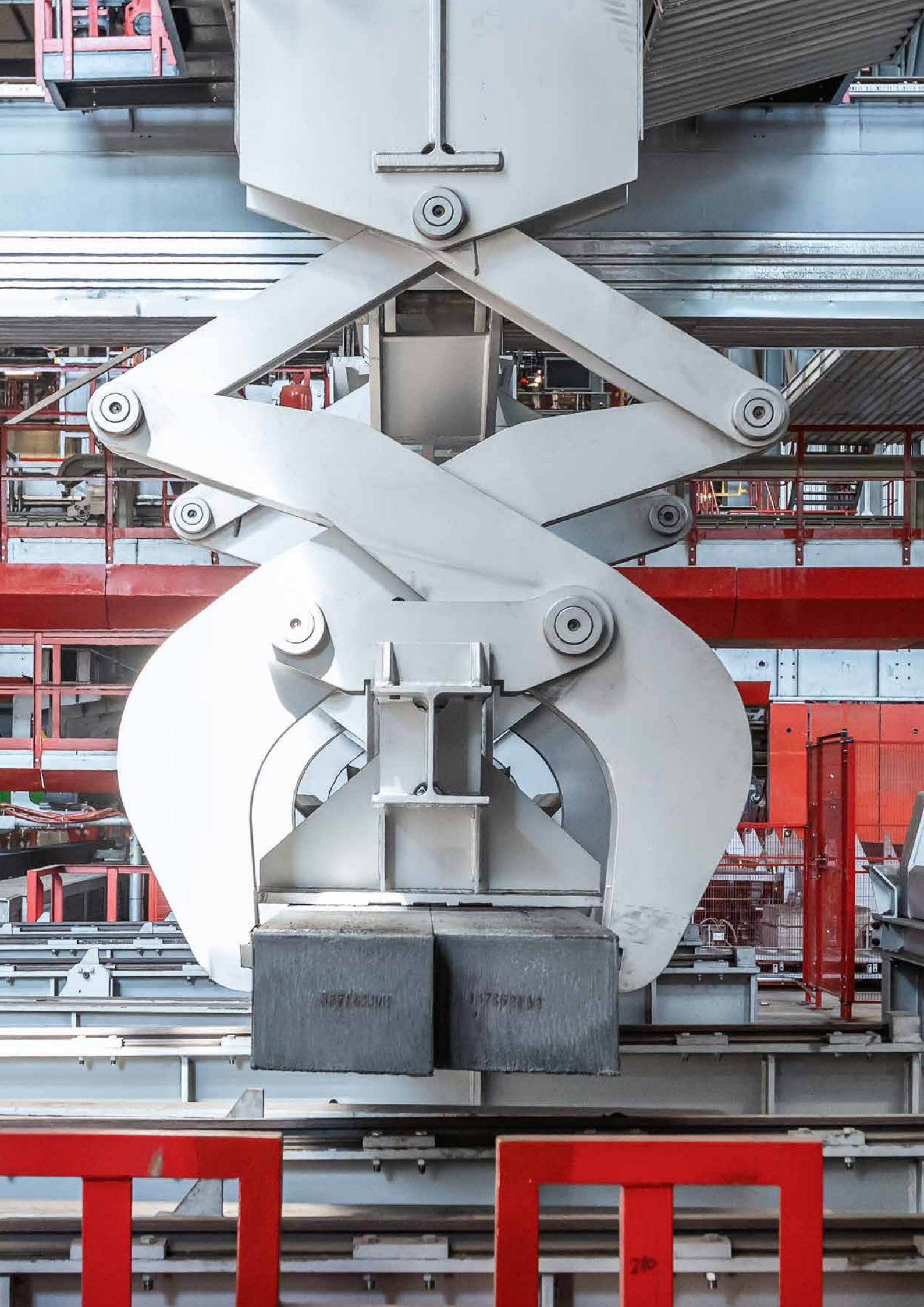
Franz Kainersdorfer, Executive Board Member of voestalpine AG and Division Head of Metal Engineering.

STEELS WITH HIGHER PURITY AND OPTIMIZED SURFACE PROPERTIES.

The flow-optimized tundish with a capacity of up to 38 tons makes it possible for us to produce high-purity steels. The ingenious air-mist cooling system with its computerized modeling makes it possible to precisely set cooling parameters in the secondary cooling zone in the interest of optimized solidification. A large number of electromagnetic stirring coils and up to ten soft and hard reduction modules allow the production of homogeneous products with the lowest number of segregations.

Cracking due to high stress on rail surfaces, for example, can be avoided by a homogeneous microstructure of the material.







HIGH PERFORMANCE

With its four strands, the new CC4 continuous caster achieves casting speeds of up to 1.7 meters per minute and an annual production rate of 1 million tons.

WIDE RANGE OF PRODUCTS

The straight mold design with hydraulic oscillators and a casting bending radius of 10.5 meters enables the production of a wide range of products, including rail steels, steels for seamless tubes, steels for cold forging, ball bearing steels, spring steels in super-clean quality, and the expansion of the product range to include high-alloyed materials.

CASTING LINE AT A GLANCE

- » Four strands
- » Casting bending radius of 10.5 meters
- » Electromagnetic stirrers
- » High tundish capacity (up to 38 tons) with argon inertization
- » Automatic charging of casting granulate with combined layer thickness measurement
- » Casting sizes: 440 x 330 mm, 360 x 270 mm and round section diameter of 230 mm
- » Soft and hard reduction
- » Most modern automation and communication technologies

You too can take advantage of the opportunity to improve the material properties of your products based on Industry 4.0 standards.

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voestalpine
ONE STEP AHEAD.