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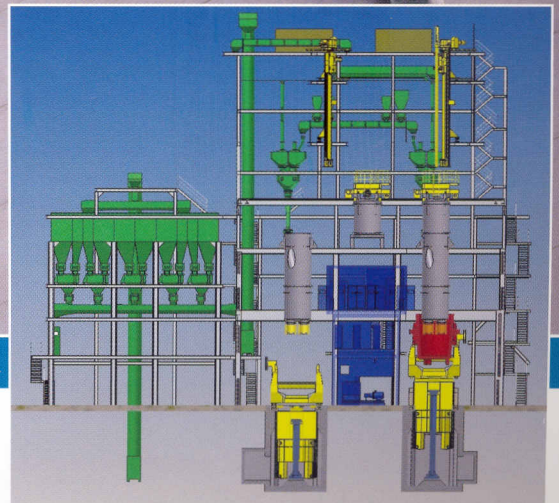
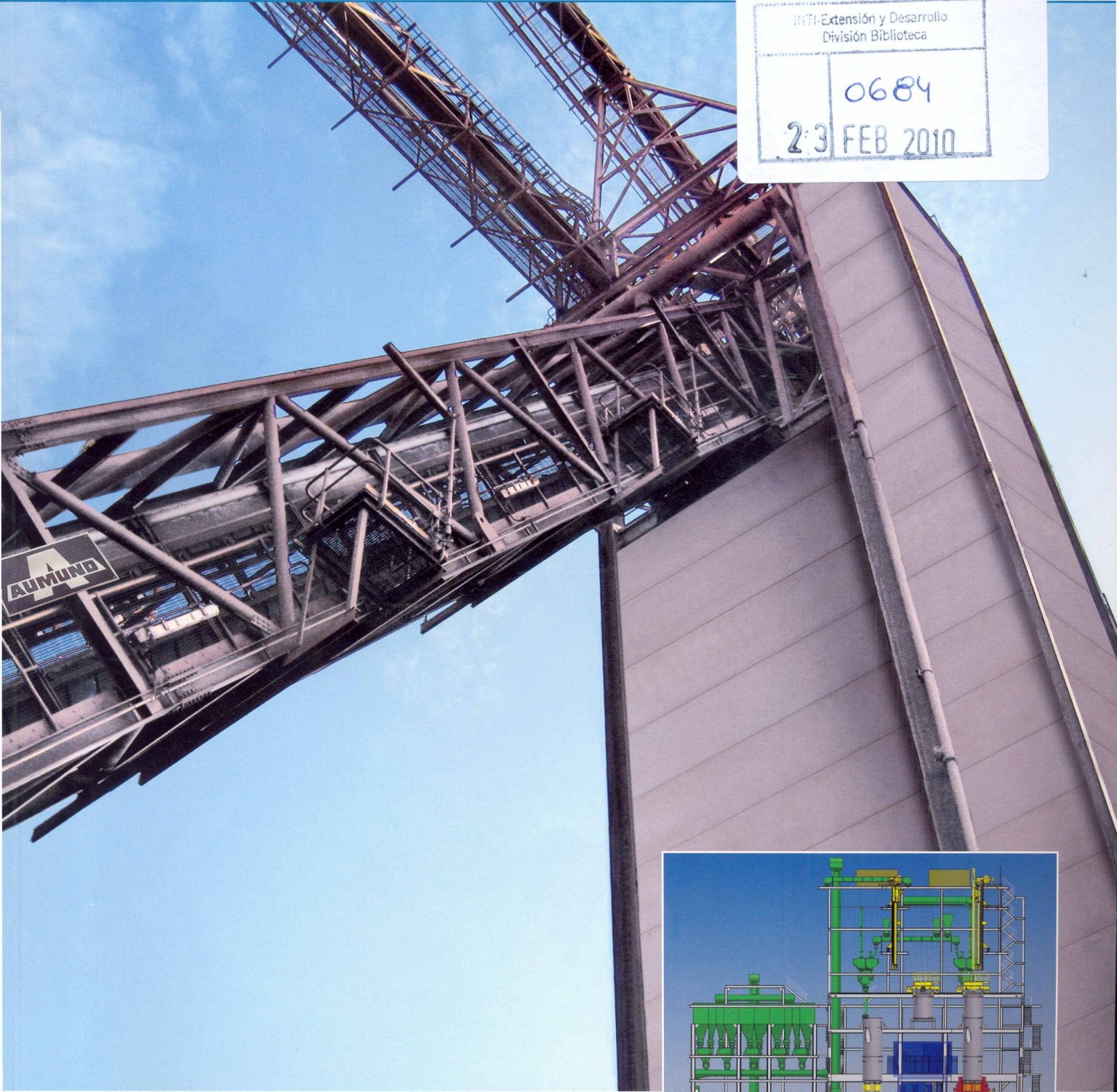
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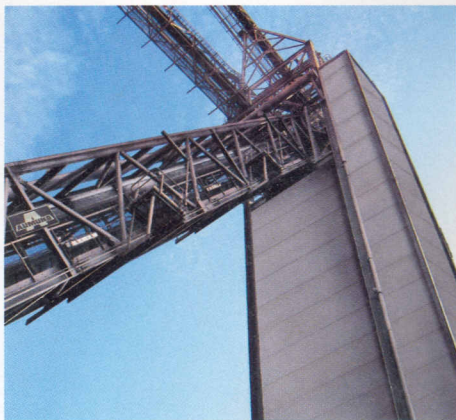
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Customizing of RH degassing technology
demonstrated by examples in China



Cover photo:

Aumund Bucket Apron Conveyor Type BZB-H for hot material, e.g. iron ore up to 1100° C. On request available with inerting system

Contact: www.aumund.com
E-mail: metallurgy@aumund.de



Editorial

A. Hannewald

- 3** New benchmarks for hot strip production?

Columns

- 8** International industry news
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Topical themes

M. Thiehofe, K. Gierke, R. Eggert

- 30** Customizing of RH degassing technology demonstrated by examples in China

For the booming Chinese steel industry, 18 new Ruhrstahl Heraeus (RH) recirculation degassing plants have been built by SMS Mevac since 2000. This article shows typical plant concepts and plant configurations based on the latest RH plants built in China and advanced technologies capable of meeting the specific requirements of each steel producer.

Steelmaking

M. Biancchi Ferri, C. Giavani

- 26** World's largest Consteel plant feeds the new thin slab mill at Arvedi, Italy

The new steel plant at Acciaieria Arvedi features the highest-capacity Consteel® electric arc furnace ever built, enabling a production rate of 3 million t/year of liquid steel. The plant is now capable of operating continuously at the target nominal production level of 300 t/h.



Consteel EAF at Arvedi

- 28** 20 years of Consteel technology

Tenova recently celebrated the twentieth anniversary of Consteel, the continuous charging system for electric arc furnaces.

Continuous casting

C. Tercelli, G. Disaro, A. Dittmann, A. Sgró, D.-W. Yang

- 36** Bloom casting with dynamic mechanical soft reduction at Posco, Korea

A 3-strand continuous bloom caster was installed at Posco, Pohang. The machine is designed to cast blooms of 400 mm x 500 mm in size. This article gives a summary of plant operation and performance results achieved so far.

G. Paulon, D. Shenyong, C. Piemonte

- 42** The new slab caster for stainless steel at ThyssenKrupp Acciai Speciali Terni

This new single strand slab caster was successfully started up with the first cast of AISI 304 grade. The article summarizes the reasons for installing the new plant and describes the technological solution, main features and the excellent quality results of this state-of-the-art caster achieved since its start-up.

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22 World Steel Association short range outlook for 2010

World Steel Association forecasts that global steel demand will return to growth in 2010 but this is expected to be moderate.

24 Settled well Danieli prepares for tough years to come

In the financial year 2008/2009 Danieli group has stabilized at high level.

Reheating

E. Mozzi

46 Flameless combustion control for ultimate reheating quality and plant efficiency

With a reheating capacity of 350 t/h, walking beam furnace No. 5 at Ilva Taranto is feeding the biggest hot strip mill in southern Italy. Ilva's objective was to implement a high-efficiency plant powered with both natural gas and coke oven gas. The "MAB flameless technology" achieves ultimate reheating quality and ultra-low emission and consumption values.

L. Guerra

48 Perfect furnace control saves up to 15 per cent fuel

Different control methods have been developed to improve reheat furnace efficiency. Among the methods that produce a more homogeneous material temperature and minimize fuel consumption are strategy tables, delay tables or heating and cooling ramps and a mathematical model.

Hot rolling

G. Sedelmeier

54 Managing the effects of water on steel mill lubrication

Many critical mechanical parts in the steel mill are susceptible to water contamination. Therefore, it is important to use lubricants that can effectively handle wet environments and resist rapid degradation of quality.

Environmental protection

G.-M. Klein, T. Neuhaus, T. Daniel, A. Kögel

58 Reduction of operating costs by up to 40% through dust removal technology

The article presents innovations with regard to design, control and filtration technology, reducing the specific energy consumption of dust removal systems using jet pulse bag filters.



High-efficient bag filter plant