

Cover photo:

IMS measuring systems for cold rolling

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MPT

INTERNATIONAL

Editorial

A. Hannewald

- 3 **Necessary adjustments to distorted markets**

Columns

- 6 **International industry news**

- 60 **Technical innovations**

- 69 **Ask the expert**

- 69 **Cartoon**

- 70 **Literature service**

- 72 **Imprint**

Topical themes

- 22 **Manufacturing execution system for production scheduling to be implemented at Severstal**

In its Cherepovets production complex the Russian steel producer Severstal will implement a new platform for plant-wide production planning and monitoring. The system provides plant operators with an overview of material flows and production processes at all times. With the help of key performance indicators, processes can be evaluated and the entire value chain in the plant can be specifically improved.

Ironmaking

J.-P. Birat, I. Goldsmith, G. Still

- 26 **Rio Tinto joins the ULCOS Isarna project**

ULCOS – an R&D consortium of the major European steelmakers – and Rio Tinto will collaborate on the Isarna project, which aims to develop a new environmentally friendly ironmaking process.

Steelmaking

Reichel, L. Rose, M. A. Damazio, R. G. Carvalho, H. B. Loss, E. M. Pinto, J. R. Dutra, M. Karbowniczek

- 30 **EAF slag foaming practice in stainless steel production**

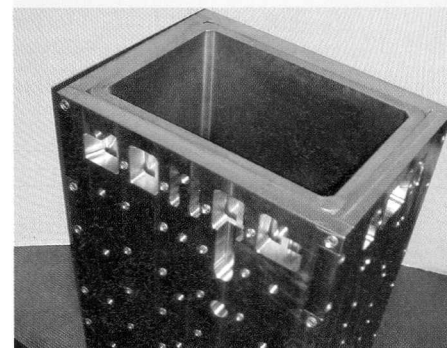
Slag foaming practice for carbon steel grades has been used for a long time but it has not yet been successfully applied to stainless steel grades. A new patented technology differs fundamentally in comparison with all known applied and trialled technologies working on the basis of injection.

Continuous casting

C. Tercelli, F. Kawa

- 40 **New mould design for continuous casting of blooms**

The so called Integrated Mould fulfils the request for a “joint free” mould cavity.



A thin-walled copper tube replaces the traditional set of copper plates

Heat treatment

A. Frassoldati, A. Cuoci, T. Favarelli, E. Ranzi, D. Astesiano, M. Valenza, P. Sharma

- 44 **Experimental and modelling study of low-NO_x industrial burners**

The geometry of a commercial burner was optimized following the principles of flameless combustion.

ABB AB	25
ACREG Process Technology GmbH	61
Association for Iron & Steel Technology	54
Atos S.p.A.	11
Badische Stahl-Engineering GmbH	3
BEDA-Oxygentechnik Armaturen GmbH	7
BETA LaserMike	60
Danieli S.P.A.	27,47
Deublin GmbH	23
dms Groupe Fives Lille	39
Ingeteam Industry S.A.	35
Julang Exhibition Co., Ltd	I.B.C.
Maschinenfabrik Köppern GmbH & Co.KG	59
Messe Düsseldorf GmbH	67
Montan-und Wirtschaftsverlag GmbH	insert
NCO spa	33
North Cape Minerals AS	15
August Penkert GmbH	65
RUSSULA, S.A.	41
S&B Industrial Minerals	19
Schalker Eisenhütte Maschinenfabrik GmbH	37
Schenck Process GmbH	12
SGL CARBON GmbH	O.B.C.
Siemens VAI	21
SMS DEMAG AG	I.F.C.,1
Steel-Academy	55
Stein Industrie-Anlagen	14
Tenova S.p.A	43
Thorwesten Vent GmbH	17
VELCO GmbH Ges. f. Förder-, Spritz- und Silo-Anlagen mbH	29
Ventilatorenfabrik Oelde GmbH	57
Verlag Stahleisen GmbH	47
Wieland Lufttechnik GmbH & Co. KG	insert
PAUL WURTH S.A.	9,1
Z & J Technologies GmbH	18
Zumbach Electronic AG	13
Zwick GmbH & Co.	65

24 Danieli reaches new all time highs in 2008

38 Zaporizhstal to replace open hearth furnaces

The Ukrainian steel producer will built a complete new steel mill capable of producing 4.7 million t/year of carbon steel grades.

Hot rolling

48 Modernization of the coil transport system at ThyssenKrupp Steel Bochum

When the capacity of the hot strip mill was expanded, the coil transport system turned out to be a bottleneck. A new integrated coil transport and dispatch centre now ensures smooth throughput in all areas of the hot strip mill. The dispatch of the hot strip coils is today largely automated, as a result of the networked operation of the coil transport and the store management system.

Automation

M. House, R. van der Walle

52 Improved quality with advanced control modules in strip processing lines

Automation and control solutions for processing and finishing lines can help to comply with delivery requirements and improve significantly on product quality, output, operator productivity and equipment durability.



Exit section of a coating line

Surface treatment

G. Dibari

56 Successful revamping of existing processing lines in record time

The electrical and automation equipment of the No. 1 pickling line was revamped and modernized at the Duferco plant in La Louvière, Belgium within a very tight schedule: during a two-week summer shutdown of the plant.

Cold rolling

T. Leikas

50 Unkown potential for rolling mills

In steel mills product handling and logistics have often been left behind the automation level of the rolling plant. The "material flow-how" tool provides a new level of service capability with better reliability in deliveries.