

326 IISI 39 annual meeting: Good prospects for steel

Paradigm shift in steel making business, from tonnage to adding value, from cyclic business to sustainable growth, short range outlook, forecast of the development of the apparent demand for finished steel products

David Gaczek:

332 Skin-pass mill No. 3 in the cold strip rolling plant of Salzgitter Flachstahl GmbH

Cold rolling of strip, sheet, 2-stand skin pass mill, special features, technical data, materials logistics

Kerstin Garbracht:

336 Vietnam's first minimill for long products at Southern Steel Corporation

Plant visit, EAF, LF, billet caster, bar/section mill, wire rod mill, structural steel, quality steel

342 ISSF - annual meeting 2005: where will stainless production go?

Michail Chajmovitsch Dodik, Gerlinde Djumljija, Horst Dussing, Andreas Viehböck, Josef Pfisterer and Uwe Pelchen:

344 Installation of the new colour-coating line at JSC Magnitogorsk Iron and Steel Works, Russia

Installation of a colour-coating line, plant layout, mechanical equipment, automation and process-control systems, colour-coated strip, surface quality, coating thickness accuracy, start-up

349 Kyung Jae Park, Young Ho Lee, and Seung Soo Cha:

Development and application of strip temperature prediction model at colour coating line

Colour coating line, baking process, peak metal temperature, prediction model, thickness, speed

Svetlana Levchuk, Klaus Schmid, Stefan Lindig, Annegret Brendel, and Harald Bolt:

355 Interface reactions between SiC fibres and 9Cr steel matrix with and without W and Re diffusion barriers

C, SiC, steel, diffusion barrier, diffusion coefficient

Hoda El-Faramawy:

360 Effect of titanium and vanadium additions on high manganese (Hadfield) steel containing nitrogen

High manganese steel, Hadfield steel, Ti-alloyed steel, V-alloyed steel, steel deformation, abrasive wear

Process technology



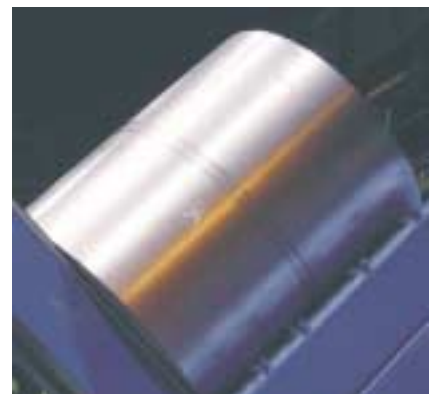
Steel demand is still at high levels, especially in the "BRIC" countries (Brazil-Russia-India-China). Accordingly, these areas are currently fac-



ing many plant erections. The target is to increase domestic steel production so as to fulfil the demand without depending on imports. Modern



process technology recently put into practice is presented on the examples of a skin-pass mill in Germany,





Vietnam's first long products mill and a colour-coating line in Russia. Additionally, process models supporting plant technology are presented as well as machinery and equipment available from the plantmakers. Microstructural processes, diffusion, effects of various alloying elements are issues discussed in the R&D de-



partments to further improve the material properties. Processes to analyse temperature profiles and to achieve accurate product dimensions help to obtain value-added steels. A pros-pos, the artist introduced here added a special kind of value to stainless steel.



Joris Van den Bosch, Kim Verbeken, Dirk Vanderschueren, and Bruno C. De Cooman:

Hot band transverse temperature profiles analysis 370

Hot band, transverse temperature homogeneity, thermal shoulders, roughing, finishing, coiling

Otto Harrer, Thomas Hatzenbichler, Karol Kostúr, Marcel Pástor, Martin Truchlý:

Methods of controlling the cross-section in rolling mills for long products 375

Rolling mill trains, cross-sectional area, variable disturbances, finite element analysis, control systems, quotient control, torque control, mass flow control

Volker Wesling, Antonia Schram and Tim Rekersdrees:

High-frequency welding of martensitic sheet steel - process influence on the tensile strength 380

High-frequency welding, AHSS grades, welding, ultimate tensile strength, skin effect, proximity effect, resistance welding, martensite, square butt joint, MS-W1200

from P&S Plantmakers and Suppliers

Jens Kallweit:

STEEL CLIP: SMS Eumuco - High performance machinery for the massive forming industry 385

Investments into future -

Plantbuilding around the world	Steel	389
	Aluminium	398

Juniors' Suite

News from worldwide research activities 399

Korea's GIFT, Australia's Center of Excellence, Germany's materials portal

A Bit of Art

Kerstin Garbracht:

Thomas Schönauer's organic steel 400

Columns

Impressum	398
Scientific Circle	354
Subscriber's information	353
List of advertisers	331

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