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espresso 5i at ArcelorMittal

Contact: [www.parsytec.de](http://www.parsytec.de)  
E-mail: [info@parsytec.de](mailto:info@parsytec.de)

# MPT

INTERNATIONAL

## Editorial

*A. Hannewald*

### 1 Continuing steel boom

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## Topical themes

### 26 International Iron and Steel Institute (IISI) short range outlook

The International Iron and Steel Institute (IISI) forecasts 2007 will be another strong year for the steel industry with apparent steel use rising to 1,197.6 million t in 2007, an increase of 6.8% compared to 2006. Latest projections for 2008 suggest a similar global growth rate to this year at 6.8%. These figures represent an upward percentage point revision of 0.9 for 2007 and 0.7 for 2008 over the March forecast.

## Company profiles

### 24 New flat steel complex to be built in Turkey

### 28 Danieli presents itself with new strength

Once again the business profits of the Danieli Group followed the upswing curve in the financial year 2006/2007. Revenues were even better than forecast one year ago. The results significantly increased based on financial reorganizational measures carried out in the years before.

## Steelmaking

*M. Kirschen, A. Kronthaler,  
T. Molinari*

### 30 Economical aspects of using water cooled copper blocks in refractory linings

The installation of water cooled copper blocks over the entire slag line of electric arc furnace linings has recently been proposed and is under trial with a view to increasing refractory lining lifetime. However, the specific energy loss equalled additional costs of up to 0.61 Euros/t of liquid steel.

## Continuous casting

*M. Miller, R. Schweiger*

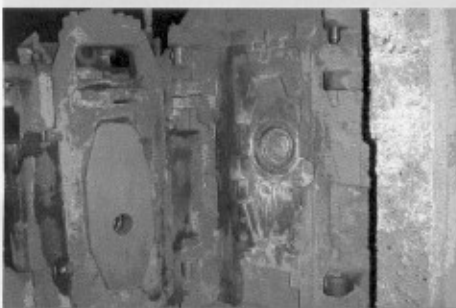
### 32 High-speed ladle change through innovative automation equipment

In continuous casting, ladle change should not be a limiting factor to productivity. A steel works in southern Germany has developed a completely new solution using a ring-type ladle car allowing a ladle change to be performed in just 30 seconds.

*J. Chaudhuri, G. Choudhury,  
S. Kumar, V. V. Rajgopalan*

### 38 New generation ladle slide gate system for performance improvement

The service life of the slide gate plate is a limiting factor to achieve performance and is greatly dependent on the type of slide gate mechanism used. A new generation slide gate system is the key to achieving longer plate service life and hence higher productivity.



The ladle slide gate system is a critical piece of flow control equipment

## 44 Back on stage for the booming demand for presses

For decades Siempelkamp has manufactured customized metal forming presses with high pressing forces. The present boom in the metal forming sector has fundamentally changed the role of this business field within the Siempelkamp Group. Siempelkamp has repositioned itself in order to participate in the current boom. MPT talked with Dr.-Ing. Hans W. Fechner, Chairman of the Executive Board of Siempelkamp.

## Hot rolling

*W. Kunze*

### 48 Siemens establish new global Competence Centre

Siemens Metals Technologies are to make their UK facilities into a worldwide Competence Centre for plate rolling mills and aluminium plants. The two UK locations in Sheffield and Christchurch have been combined into a special subdivision called "Plate & Aluminium Rolling", which will be responsible for worldwide business with plate and aluminium rolling mills.

### 52 Transport of new roll housings as a logistical challenge

Last August, SMS Demag supplied two roll housings weighing 356 t each to Aleris Aluminium Koblenz, Germany. The delivery was a logistical challenge for the plant supplier. The overweight transport to the rolling mill over a distance of 150 km took two weeks. A road bridge had to be reinforced just for this project and the Rhine, Germany's biggest river, had to be crossed by ship.

## Heat treatment

*P. Wendt, F. Maschler, P. Wang*

### 54 Quality aspects of hydrogen annealed steel strip

In the past, the bell-type annealing process has often been seen as the sole cause of stickers. This article discusses the various types of stickers, the mechanisms that produce them and the precautions against them.

## Surface treatment

*G. Garlatti, M. Ravera*

### 62 Simple and ecological passivation technology using chemical roll coaters

The passivation of galvanized or cold rolled strips can be carried out for different purposes, the most important one being corrosion resistance. This article describes the passivation and conversion of strip surfaces with devices called chemical roll coaters providing important economical, ecological and technical advantages.



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