Profile, flatness and ski-end control in plate rolling

Project ID: 7210-PR/028
Funded under: ECSC-STEEL C

Profile, flatness and ski-end control in plate rolling

From 1997-07-01 to 2000-12-31

Project details

<table>
<thead>
<tr>
<th>Total cost:</th>
<th>Topic(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR 1 175 500</td>
<td>D2 - Rolling - flat products</td>
</tr>
<tr>
<td>EU contribution:</td>
<td>Funding scheme:</td>
</tr>
<tr>
<td>EUR 705 300</td>
<td>CSC - Cost-sharing contracts</td>
</tr>
</tbody>
</table>

Coordinated in:
Sweden

Objective

Advanced plate profile and flatness control systems are used nowadays in plate mills. They are based on physical models derived from plate temperature, rolling force, roll deflection, roll wear, roll thermal expansion, plate crown and flatness parameters. The goal of this research work is to improve and speed up models for plate pass scheduling, profile and flatness using a profile and shape vector method, which takes account of the decreased period available between passes in the plate mill. The temperature model considers phase transformation, latent heating and re-crystallisation. Rolling forces are calculated using a friction-hill model coupled to neural networks and the shape model is an empirical physical model deduced from FEM calculations.

Coordinator

MEFOS, FOUNDATION FOR METALLURGICAL RESEARCH
Aronstorpsvägen 1
971 25 LULEÅ
Sweden
See on map

Administrative contact: Annika NILSSON
Tel.: +46-920201970
Fax: +46-920255059
E-mail

Participants
ACERALIA CORPORACION SIDERURGICA
Centro de Desarrollo Tecnológico Apartado 90
33480 AVILES
Spain

Administrative contact: Nicolas DE ABAJO MARTINEZ
Tel.: +34-985-126404
Fax: +34-985-126375
E-mail

INSTITUT DE RECHERCHES DE LA SIDERURGIE FRANÇAISE
Voie Romaine - BP 320
57214 MAIZIERES-LES-METZ CEDEX
France

Administrative contact: Pierre MABELLY
Tel.: +33-38-7704241
Fax: +33-38-7704101

RAUTARUUKKI OY
Kiiakiventie, 1
90250 OULU
Finland

Administrative contact: Risto KORHONEN
Tel.: +358-8-8492541
Fax: +358-8-8492588
E-mail

Last updated on 2002-12-13
Retrieved on 2019-08-16

© European Union, 2019