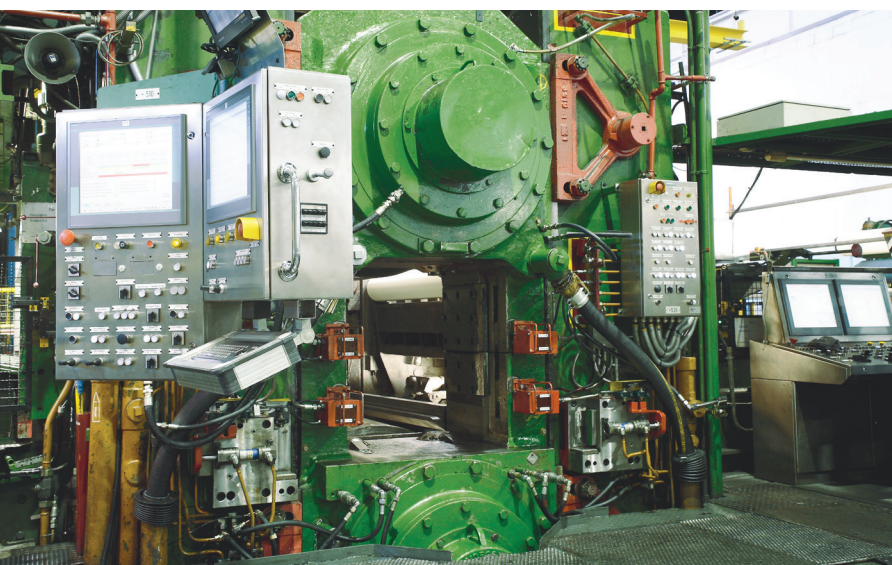

MEASUREMENT & ANALYTICS

ArcelorMittal in Bremen, Germany has successfully installed and commissioned Millmate Roll Force Systems



ArcelorMittal Bremen's temper mill is running with ABB's Millmate Roll Force Systems.

Measurement made easy

Background

In the 1980's Bremen Steelworks and ABB's Pressductor technology load cells started a successful cooperation leading to a good development with high quality results. As a matter of curiosity the two partners started its operations in the same year more than half a century ago, in 1954.

Since a year back ArcelorMittal Bremen is conducting an optimization project in the temper mill. The main reasons for optimizing the temper mill are to control the properties of the material, increasing productivity and improving mill performance.

In this optimization process the ABB load cells have an important part being a contributor of good roll force measurement results.

What has been achieved?

We ask Mr. Mario Mahnke, Manager Electrical Maintenance, Flat Carbon, Cold Rolling Mill, about the Millmate Roll Force System installation: "ArcelorMittal Bremen is and has been a loyal ABB load cell customer since some 30 years and we appreciate the load cell characteristics such as robustness, reliability and accuracy."

"Ever since the Millmate Roll Force load cells were installed and commissioned in our rolling mills they have been running very well without any problems. We feel secure with the roll force measurements and we get an even and continuous strip quality. That is very important to us."

We are also experiencing a continuous reduction of scrap and we have better control of the strip head and tail ends of the coils. The ABB load cells are connected to the control system and working very well in the elongation and gap control."

"The latest set of Millmate Roll Force load cells were installed in 2008 and so far we have not had any problems whatsoever. The Profibus connection works very well in our optimization project and we feel very secure with the robust and reliable load cells."

Andreas Meyer, Electrical Engineer, Flat Carbon, Cold Rolling Mill, at ArcelorMittal in Bremen, Germany.



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01 ArcelorMittal in Bremen, Germany.

02 The Profibus connection works very well in our optimization project and we feel very secure with the robust and reliable load cells.

03 Temper mill.

04 ABB's Millmate Operator Unit.

Mr. Andreas Meyer, Electrical Engineer, Flat Carbon, Cold Rolling Mill, expresses his opinion about the Millmate Roll Force System installation: "The latest set of Millmate Roll Force load cells were installed in 2008 and so far we have not had any problems whatsoever. The Profibus connection works very well in our optimization project and we feel very secure with the robust and reliable load cells. Our customers are happy with our deliveries of high and continuous strip quality and especially the improvements of the bending and deep drawing qualities."

Company profile – ArcelorMittal group

ArcelorMittal Bremen has been a part of Arcelor corporation group since 2001. Arcelor corporation group was launched as a result of the merger of ARBED, Aceralia and Usinor.

Mittal Steel was founded in 2004 by the LNH Holdings and SPAT International. Mittal Steel and Arcelor merged to ArcelorMittal corporate group in 2006. Its head office is located in Luxembourg City.

With more than 190,000 employees, with steel manufacturing in 18 countries and with customers in 160 countries, ArcelorMittal is the world's largest steel group. It produces steel for automotive, construction, packaging, engine building and appliance industries.

Due to its worldwide presence and remarkable productive power, ArcelorMittal is able to react swiftly in all strategic regions and provide its customers with an optimal service.

For more information visit:
www.arcelormittal.com/bremen

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Supplied equipment

ABB Force Measurement has supplied the following equipment to ArcelorMittal in Bremen, Germany:

- Temper mill
 - One Millmate Roll Force System
 - Two rectangular load cells, PFVL 141V-20 MN
- Hot strip mill
 - 11 Millmate Roll Force Systems
 - 22 circular load cells, PFVL 141C-20 MN
- Tandem cold mill and pickling line
 - 6 Millmate Strip Tension load cells, PFBL 141 - 63 kN
 - 6 PillowBlock strip tension load cells, PFTL 201

Mill data

2-hi Temper mill	
Supplier	DEMAG Blaw-Knox
Rolled material	Flat carbon steel
Strip qualities	Critical exposed automotive strip
Tonnage	375 000 tons/year
Coil weight	45 tons
Strip thickness min./max.	0.35 to 4.00 mm
Strip width min./max.	600 to 2080 mm
Work roll diameter	540 to 580 mm
Backup roll diameter	1320 to 1420 mm
Maximum roll force	1500 tons
Motor, drive power	2 x 700 kW
Max. rolling speed	1200 m/min

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