

Baosteel Group Corporation

Shanghai | China



Baosteel has installed many of ABB's products in their processing lines – in hot strip annealing and pickling lines for stainless and special steels.

Measurement made easy



Baosteel Group Corporation

Introduction

Baosteel's processing lines for stainless and special steels are running with:

- electromagnetic flowmeters
- vortex/swirl meters
- pressure transmitters
- actuators/positioners
- analyzers,
- Stressometer flatness control systems,
- PillowBlock strip tension systems and Millmate strip scanner systems

... all from the ABB Measurement & Analytics portfolio.

For more information

Further details of the ABB Measurement & Analytics are available for free download from:

www.abb.com/measurement

or by scanning this code:



Further details of Baosteel are available from

www.baosteel.com

or by scanning this code:



Baosteel overview

Baosteel Group Corporation (hereinafter referred to as Baosteel) is a typical enterprise arising from China's reform and opening-up. The construction of Baosteel commenced on the bank of Yangtze River in north Shanghai on December 23rd, 1978, only one day after the closing of the Third Plenary Session of the Eleventh CPC Central Committee.

After over 30 years of development, Baosteel has grown into China's most competitive iron and steel group with the highest level of modernization. At the end of 2012, Baosteel had a total of 130,401 employees located all across the world. Baosteel, with its primary operation in iron and steel, produces premium iron and steel products with high technology contents and added values and has fostered three major product lines, namely carbon steel, stainless steel and special steel.

In 2012, Baosteel achieved steel output of 43.83 million tons and a total profit of RMB 10.4 billion, ranking the second among the world's iron and steel enterprises. Last year, in 2013, Baosteel was listed among the Fortune Global 500 by the U.S. Fortune magazine for the tenth consecutive year and ranked 222nd. In addition, Baosteel has also been awarded the honor of the 'World's Most Admired Company' for another year and the highest credit ranking among the world's iron and steel enterprises by the Big Three credit rating agencies, namely Standard & Poor's, Moody's and Fitch Ratings.

In 2012, Baosteel has been recognized jointly by the Ministry of Industry and Information Technology and the Ministry of Finance as the 'National Model Enterprise for Technological Innovation.'



Left to right: Mr Jun Zhong (Sino-Media Automation), Mr Min Shi (BaoSteel No 1), Martin Ottosson (ABB Measurement & Analytics), Mr Jia Fan Zeng (BaoSteel No 5)

What are the main benefits with ABB Measurement & Analytics and how are the different Measurement & Analytics performing in Baosteel's processing lines?

ABB Measurement & Analytics portfolio installed at Baosteel, Shanghai consists of:

- electromagnetic flowmeters
- vortex/swirl meters
- pressure transmitters
- actuators/positioners
- analyzers
- stressometer flatness control systems
- PillowBlock strip tension systems
- Millmate strip scanner systems

We ask **Mr Jia Fan Zeng**, representing BaoSteel No 5 and **Mr Min Shi**, representing BaoSteel No 1 to comment the ABB Measurement & Analytics in Baosteel's processing lines:

"We have long experience working with ABB and in general ABB products are very good, including the MP-products. We also want to mention that Baosteel is the most modern steel plant in China. Baosteel has the ambition to be in the frontline with Measurement & Analytics and that's the reason for us to buy quality products from ABB. And especially we want to emphasize the excellent Ratio Quality-to-Price provided by ABB."

Electromagnetic flowmeters

The competitive ABB Measurement & Analytics have been installed since 2006 and the instrumentation has been working very well ever since.

"The performance of the electromagnetic flowmeters (EMF) has exceeded expectations and the main benefits are:

Excellent quality

- service: on-time service, from commissioning to after-sales is good
- Stable measurements
- high measurement accuracy
- robust products
- no maintenance

To summarize: Ratio quality-to-price is good"

“The performance of the electromagnetic flowmeters (EMF) has exceeded expectations.”

The EMFs are placed in the control loop and they are installed where there is water flows such as:

- cooling water
- recycled water
- waste water

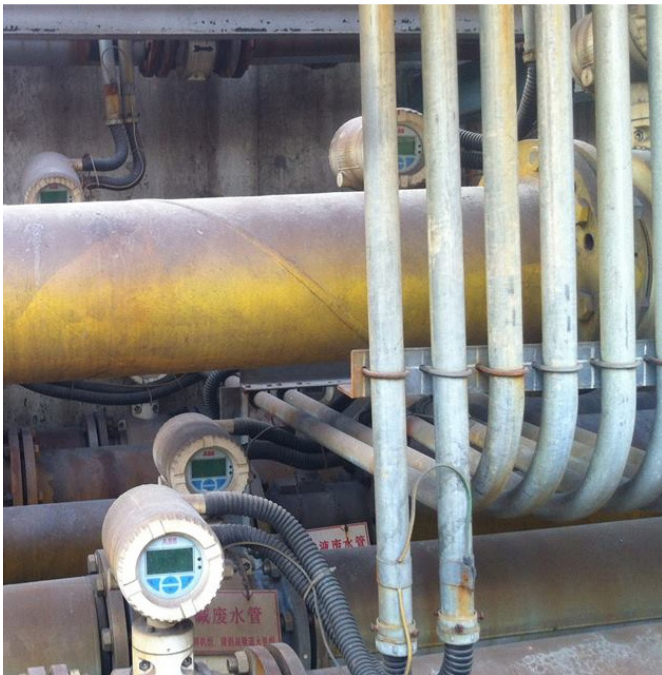


ABB ProcessMaster magnetic flowmeters



ABB magnetic flowmeter



ABB FAM540 metal variable area flowmeter

Vortex/Swirl meters

ABB Measurement & Analytics have a wide product portfolio of competitive vortex/swirl meters and the performance of the meters is very good. Vortex is very critical in measuring steam flow and water.

“Main benefits with ABB vortex/swirl meters are:

- high accuracy – very important and crucial
- problem-free installation and service – very important and crucial”



Vortex flowmeter FV4000-VT4 (TRIO-WIRL), flange, 3 inch

Pressure transmitters

ABB Measurement & Analytics have a wide product range of pressure transmitters and the performance of the transmitters is very good in comparison on the commodity-like market with many competitors.

“We have very good experience from the old ABB pressure transmitters still measuring very accurately after running more than 10 years in the steel mill.”

At Baosteel pressure is measured for general purposes such as:

- water pressure
- gas pressure
- steam pressure



ABB 2600T pressure transmitters

Actuators/Positioners

ABB Measurement & Analytics, being one of the major players on the world market, have a wide portfolio of actuators & Positioners. The actuators and positioners performance is very reliable and has a good reputation on the market.

“We really want to emphasize ABB’s well-designed products in the actuators & Positioners portfolio. Further, the quality is excellent and you can trust the products for many years to come.”



ABB Contrac electric valve actuators

Analyzers

ABB Measurement Products, being one of the major players on the world market, have a wide portfolio of analyzers in for example PH connectivity, dissolved oxygen, turbidity and water treatment supply.

“The performance of the Analyzers is:

- very accurate
- very reliable
- very stable analyzers
- very robust analyzers
- there is no need of maintenance for ABB Analyzers”



ABB 4675 turbidity system, panel-mount analyzer with wall-mount 4670 and 7997 sensors



ABB SCC-C sample gas cooler

Stressometer flatness control systems

ABB Measurement & Analytics have a leading position on the world market for flatness measurement and control systems in metal rolling mills.

“Stressometer is the best flatness measurement system on the market.”

“We know the Stressometer system well and it is really good.”

“We have had hands-on training at the ABB facilities in Sweden with good results.”



Stressometer measuring roll with HMI



ABB FE2 modular sample gas extraction system filter unit

—
“Stressometer is the best flatness measurement system on the market.”

PillowBlock strip tension systems

ABB Measurement & Analytics have a leading position on the world market for strip tension measurement solutions in metal rolling mills.

“Tension control is one of the most important process parameters in a process line. In order to achieve good tension control you need reliable input of the actual tension. Therefore the selection of reliable tension load cells is crucial. For Baosteel the choice was ABB’s Large PillowBlock tensiometers and the underlying Pressductor technology. We appreciate the reliable and accurate measurements with ABB’s large PillowBlock tensiometers.”

“ABB PillowBlock load cells are really robust and reliable.”

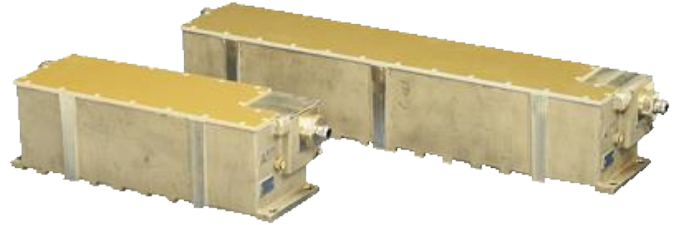


PillowBlock strip tension load cells

“ABB PillowBlock load cells are really robust and reliable.”

Millmate Strip Scanner Systems (MSS)C

MSS-systems are widely used to measure strip edge position, off-center and strip width in rolling mills as well as in processing lines.



Millmate strip scanner systems, strip width and position measurement

“The MSS-sensors have been running perfectly for many years of operation. MSS provide reliable solutions for strip position and width measurement.”

—
To find your local ABB contact:
www.abb.com/contacts

For more product information, visit:
www.abb.com/measurement

**ABB Engineering (Shanghai) Ltd.
Measurement & Analytics**

No. 5, Lane 369, Chuangye Road
Kangqiao Town
201319, Shanghai
China

Contact: Paddy-JunDong Huang
Tel: +8621-6105-6432
Fax: +8621-6105-6999
Mob: +8621-6105-022

**ABB Limited
Measurement & Analytics**

Tvarleden 2
721 59 Vasteras
Sweden

Contact: Martin Ottosson
Tel: +46 21 34 21 51 or +46 70 65 53 022
Email: martin.ottosson@se.abb.com

abb.com/measurement



—
We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB.

©ABB 2018
All rights reserved.