

Sapa Heat Transfer in Shanghai, China, has successfully installed two Stressometer Systems

Sapa Shanghai's aluminium cold rolling mills running with two Stressometer flatness control systems



Sapa Heat Transfer (Shanghai) Ltd., is a wholly foreign-owned enterprise (WFOE), based in the automotive centre of Jiading, north of Shanghai. Sapa is the only rolling mill in the world that has chosen to work exclusively with aluminium strips for heat exchangers in automotive applications.

The Sapa Group develops, manufactures and markets value-added profiles, profile-based building systems and heat exchanger strip in the light-weight material aluminium. The Group's business concept is built on close cooperation with our customers – in Europe, North America, Central America and Asia. The Sapa Group has a combined turnover of 5 billion USD and 15,000 employees. (For more information, visit www.sapagroup.com)

What has been achieved?

We ask Mr. Yang Yan Bo, Electrical Engineer & Development Project Team Leader:

"The rolling mill performance is much better with the Stressometer flatness systems. We have increased the productivity step by step and the availability has improved a lot.

The measurements are very stable and we have seen a considerable decrease of scrap due to the Stressometer-installations.

Further, in the long term we have increased the production speed from 300 m/min to 1000 m/min and thereby we have succeeded to increase our production efficiency considerably.

Besides the Stressometer-installations we have another ABB-installation in the leveling line, a MTG thickness gauging system. The MTG performance is very good and we are planning for more.

We have a continuous development of our production and through the new expansion project we see a good future for Sapa.

In order to fulfill the increasing customer demands and to sustain our good reputation on the market we are very careful when selecting suppliers of flatness control and thickness gauging.

It is very important that we live up to the renommé that Sapa is number 1 in aluminium strip for heat exchangers for automotive applications."

"The rolling mill performance is much better with the Stressometer systems"



Supplied equipment

ABB Force Measurement has supplied the following equipment to the two 4-hi, single stand cold rolling mills:

CRM 1

- One Stressometer 6.0 FSA flatness system
- One Standard roll, diameter 313 mm
27 measuring zones, each zone 52 mm wide

CRM 2

- One Stressometer 6.0 FSA flatness system
- One Foil roll, diameter 200 mm
25 measuring zones, each zone 52 mm wide
- One Millmate strip tension system,
PillowBlock Tensiometer System



Project leader Mr. Yang Yan Bo: Sapa is the market leader in China, where the company supplies most of the leading heat exchanger manufactures.

Mill data CRM 1	4-hi Single stand mill
Rolled material	Aluminium alloys (AA1000, AA3000 and AA5000 series) Clad and unclad material
Tonnage	150000 tons/year
Coil weight	7 tons
Strip width min./max.	800 – 1260 mm
Exit strip thickness min./max.	0.05 – 5.0 mm
Max. rolling speed	1000 mpm
Work rolls	360 mm
Backup rolls	800 mm
Mill motor	2200 kW

Mill data CRM 2	4-hi Single stand mill
Rolled material	Aluminium alloys (AA1000, AA3000 and AA5000 series) Clad and unclad material
Tonnage	100000 tons/year
Coil weight	7 tons
Strip width min./max.	650 – 1250 mm
Exit strip thickness min./max.	0.04 – 0.60 mm
Max. rolling speed	1500 mpm
Work rolls	280 mm
Backup rolls	800 mm
Mill motor	2200 kW

Contact us

ABB AB

Force Measurement
S-721 59 Västerås, Sweden
Phone: +46 21 32 50 00
Fax: +46 21 34 00 05