Stressometer successfully installed and commissioned at Ruukki in Hämeenlinna, Finland

Ruukki's steel strip temper mill revamped and running with a Stressometer 7.0 FSA flatness control system.

Ruukki supplies metal-based components, systems and integrated systems to the construction and mechanical engineering industries. The company has a wide selection of metal products and services. Ruukki has operations in 23 countries and employs 12,000 people.

Ruukki has four divisions. Ruukki Production includes the Hämeenlinna 1.3 Mton-per-year-operation with around 1000 employees.

Ever since Ruukki implemented the strategy with offers for complete construction projects (examples are complete bridges, airports and shopping malls) the company has been very successful leading to increased sales and higher stock prices.

"The flatness is much better with Stressometer 7.0 than with the previous air-bearing system."

What has been achieved? We ask Mr Aarne Vesanen, Production Manager, Cold Rolling and Mr Jari Nylander, Development Manager, Cold Rolled Products, who concordantly express their opinion about the new Stressometer 7.0 installation:

"The flatness is much better with Stressometer 7.0 than with the previous air-bearing system. We can control thick and hard material with good flatness. We can control skewing and unsymmetrical bending. From the Stressometer we get reliable measurements and vital information for improving the production process: there is less scrap and the Stressometer 7.0 is the last point before shipping to the customer, thus enabling us to do final corrections. Via the flatness logger we can collect and analyze data in a very reliable way".

Mr Jari Puurtinen, Electrical Engineer, adds his opinion about the new Stressometer 7.0 installation:

"We are very happy with the Stressometer 7.0 performance. The back-up rolls are in much better shape and they last much longer."

Mr Heikki Nisula, Manager, Engineering and Project Services, summarizes the temper mill revamp project at Ruukki Hämeenlinna:

"This revamp has included installations of new drive systems, new cable routings, rearrangements of three operator cabins and a new flatness control system with a reused Stress-

ometer roll, a reconditioned roll with original transducers from 1986.

The Stressometer 7.0 installation has led to improved flatness of all rolled material, both thick and hard material, good control of skewing and unsymmetrical bending, a minimum of back-up roll wear, less downtime and less scrap. All this leading to big savings and satisfied personnel."

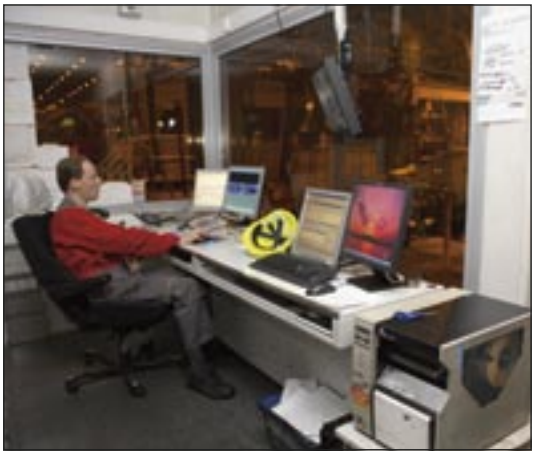
Supplied equipment

ABB Force Measurement has supplied the following to the 4-hi temper mill:

- One Stressometer 7.0 FSA flatness control system
- One Stressometer 32 measuring zones standard roll, diameter 313 mm
- Advanced fault detection and models for compensation

The Stressometer 7.0 FSA system delivery includes skewing, differential (unsymmetrical) bending and Stressometer Flatness Logger 6.2 system.

Mr Jari Puurtinen, Electrical Engineer: "With Stressometer there is less downtime, a minimum of roll grinding and thus big savings of time and money".



Mr Pertti Koskela, Mill Operator: "We have job rotation and work in 2 shifts. With the new Stressometer 7.0 flatness control system we have much better control of the rolling process".

Mill data	4-hi temper mill
Rolled material	Carbon steel
Rolled strip qualities	Cold Rolled and Hot Dip Galvanized steels
Temper Mill tonnage/year	220 000 tons
Coil weight	26 tons
Strip width min.	660 mm
Strip width max.	1575 mm
Exit strip thickness min.	0.4 mm
Exit strip thickness max.	3.0 mm
Max. rolling speed	1000 m/min
Work rolls	560 – 572 mm
Backup rolls	1370 – 1525 mm
Mill motor	2 × 410 kW

Print: Edita Västra Aros, Västerås 2006-08

3BSE045722R0001

ABB Automation Technologies AB
Force Measurement
S-721 59 Västerås, Sweden
Phone: +46 21 34 20 00
Fax: +46 21 34 00 05
Internet: www.abb.com/pressductor