

Stressometer systems successfully installed and commissioned at Marcegaglia in Ravenna, Italy

Marcegaglia's tandem and temper mills running with two Stressometer 7.0 FSA flatness control systems



Founded from scratch by Steno Marcegaglia in 1959, today Marcegaglia is an industrial and financial corporation, a leader in Europe and on a world scale in the steel and metallurgical sector, fully owned by the Marcegaglia family.

Marcegaglia is market leader in Europe and among the world's top companies in the transformation of steel.

Through its facilities, spread all over Italy and abroad, equipped with advanced technologies, more than 4 million tons of steel are processed every year. The daily production equals 5,000 kilometers of welded tubes, open profiles, drawn tubes, panels, coils, strips and sheets made from carbon steel, stainless steel and aluminium, in every size and thickness.

Achieved results

We ask Mr. Roberto Salvarezza, Production Manager Cold Rolling, about the Stressometer 7.0 installation:

"We are very satisfied with the Stressometer flatness control system and we have noted that there is now a greater demand for good flatness products from the end-users.

The main reasons for investing in flatness control systems have been to improve the quality, to get into new market niches since we have a more sensitive production. We will increase quality even more when we install a new cooling system.

Also a big reason for flatness control is that the customer claims have decreased by 70%. When the Stressometer system in the temper mill runs automatic mode there is another 20% decrease of claims. Better flatness quality gives better control in the temper mill.

The Stressometer system is very sensitive. It is easy to detect mechanical problems in the mill. This enables a preventative maintenance approach for mechanical parts in the mill. The maintenance has become very precise with the Stressometer flatness control system.

Today's 4% maintenance time at strip breaks will go down considerably with the installed Stressometer system."

"The previous problems with quarter-buckles and wavy edges have all been solved."



Mr. Luigi Villani, Quality Manager, comments the Stressometer 7.0 installations:

"There has been some big improvements after the two Stressometer installations:

The galvanizing lines producing thin material panels have improved considerably regarding batch annealing quality. With bad flatness the strip touches the air knives and we have had defects on coiling. Previously there was a gathering of zink creating an uneven bump in the coils. With good flatness from the Stressometer system there is no sticking in the coils anymore.

With good flatness in the galvanizing lines we have considerably less scrap and the previous problems with quarter-buckles and wavy edges have all been solved with the Stressometer installations.

Furthermore, in the tandem mill 90% of the flatness problems have been removed. After the temper mill we have seen 80% improvements of sticking and 20% improvements of flatness.

The improved flatness of the skinpassed material eliminates the need for further processing before prepainting."

Supplied equipment

ABB Force Measurement has supplied the following to Marcegaglia:

4-hi, 5-stand Tandem Cold Mill,

- One Stressometer 7.0 FSA flatness control system
- One Stressometer 31 measuring zones standard roll, diameter 313 mm
- Millmate Strip Scanner system
- PillowBlock Strip Tension system

4-hi Temper Mill

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- One Stressometer 31 measuring zones standard roll, diameter 313 mm
- Millmate Strip Scanner system
- PillowBlock Strip Tension system

Both Stressometer 7.0 FSA system deliveries includes skewing, work roll bending and Stressometer Flatness Logger system.



Operator Mr. Salvatore Inserra is convinced and satisfied with the Stressometer flatness control system. "The system works very well in fully automatic mode in the tandem mill."

Mill data	4-hi 5-stand TCM, continuous
Rolled material	Strip steel
Tonnage	1 250 000 tons/year
Coil weight	18.5 tons
Strip width min./max.	900 – 1550 mm
Exit strip thickness min./max.	0.30 – 2.5 mm
Max. rolling speed	1 100 mpm
Work rolls	510 – 565 mm
Backup rolls	1320 – 1340 mm
Mill motor	2600 kW
Mill data	4-hi temper mill
Rolled material	Strip steel
Tonnage	1 250 000 tons/year
Coil weight	18.5 tons
Strip width min./max.	900 – 1550 mm
Exit strip thickness min./max.	0.30 – 2.5 mm
Max. rolling speed	1 100 mpm
Work rolls	510 – 565 mm
Backup rolls	1320 – 1340 mm
Mill motor	2600 kW

Contact us

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