

Stressometer flatness control systems successfully installed at ILNOR in Venice, Italy

– ILNOR's single-stand reversing mill running with a Stressometer 7.0 FSA system, controlling the flatness on both entry and exit sides



ILNOR SpA is a family business with 130 employees, established in 1961 and totally integrated from foundry to finished products in copper and copper alloy strips.

Situated in the Venice region of Italy, ILNOR's main market is Europe. The high quality brass, bronze and copper strip is used for products in the automotive, electric and electronic industries as well as for telecommunication and sanitary products.

ILNOR works in compliance with national and international norms and is also able to supply customers' own specifications. It operates under very close manufacturing parameters to supply products to a very high consistency and quality. (For more information, visit www.ilnor.com)

Achieved results

What has been achieved? We ask the Plant Director, Mr. Roberto Falcon:

"The reason for installing flatness control systems from the beginning was to improve the working speed and the productivity. This has turned out very well and as a consequence we have achieved further benefits:

- Scrap reduction that gives 1% yield increase in the mill. With good flatness control we save material also in the slitting machines. We cut less at the edges and there is less scrap. Totally one week of production to be saved in less scrap.
- With the Stressometer flatness control installation we have been able to reduce one pass in the tension leveler, which has led to a reduction of personnel from 3 to 1 person in the leveler step.
- Downstream quality problems has been reduced, for example in the continuous annealing line. In the furnace tower it is very important with good flatness; otherwise the strip hits the sides of the narrow slot and damages the surface. Here we have seen a considerable improvement of the strip quality."

All together ILNOR is very satisfied with the Stressometer flatness control performance and as a result of this ILNOR has increased the productivity with more than 10%. "We are also pleased with the payback time ending up with less than one year."

"The payback time ending up with less than one year"



ILNOR has 4 rolling mills: Break-down, Intermediate, Skin-pass and Finish mills.

Intermediate and Finish mills are very similar; 4-hi reversible mills with the same dimensions of back-up rolls and the same type of bending system.

Supplied equipment

ABB Force Measurement has supplied the following to the 4-hi, single stand, reversible cold rolling mill, intermediate mill.

- One Stressometer 7.0 FSA flatness control system for two measuring rolls

Entry side

- One Stressometer 11 measuring zones standard roll, diameter 313 mm

Exit side

- One Stressometer 11 measuring zones standard roll, diameter 313 mm

The Stressometer 7.0 FSA system delivery includes control of work roll bending and skewing.

A short commissioning time was needed and a last tuning of the equipment took place before setting the mill in full production in automatic mode 100% of the time.



ILNOR constantly invest a lot of its financial resources in quality improvements. The achievements of the ISO 9001, ISO TS 16949 and ISO 14001 certifications are only the first steps on a long road, where safety and environmental preservation will be the top priorities.

Mill data	4-hi single stand reversible CRM
Rolled material	Brass + Bronze + Copper + Copper alloys
Tonnage	22000 tons/year
Coil weight	6 tons
Strip width min./max.	270 – 360 mm
Exit strip thickness min./max.	0.20 – 3.0 mm
Max. rolling speed	500 mpm
Work rolls	145 – 150 mm
Backup rolls	430 – 450 mm
Mill motor	500 kW

Contact us

ABB AB

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