Web Tension Measurement

Success Story

Rengo Co. Ltd is Japan’s largest manufacturer of corrugated paper and board. Today Rengo has 28 plants in Japan and the total production capacity is more than 13 billion m².

In order to improve the tension control in the corrugating machines Rengo decided to improve the tension measurement by replacing the existing LVDT-type load cells with a more stable and reliable tension load cell. The cleaning of the gluing machine with water and the relatively high temperature has caused problems with zero drift requiring frequent check-ups and maintenance.

Rengo decided to use load cells from ABB based on Pressductor® Technology which are designed for long term stable and reliable operation in severe environments.

The ABB load cells are installed in the gluing machine as well as in the splicer part of the corrugator.

Rengo emphasizes the following benefits with ABB Pressductor Technology load cells:

• No need for regular zero adjustment.
• Easy to set up, no need to calibrate with rope+weight. Easy to set the calculated gain factor and start operation.
• Measure web tension with high accuracy, in spite severe environmental conditions with dust and powder.
• Operate with good accuracy in spite of the relatively high ambient temperature.

More than 40 ABB load cells have been successfully installed in different Rengo plants in Japan.

With the successful installation of ABB Pressductor® Technology load cells in the corrugating machine Rengo has reached a considerable improvement of the productivity as well as the quality of the corrugated paper.