A Treatment line for copper foil is relatively slow process compared to many other applications. However the tension measurement and control are nevertheless very important for a successful operation.

In Taiwan at a large plant for manufacturing of copper foil used, for production of printed circuit boards, the production manager was not satisfied with the productivity mainly because of poor tension measurement. The tension load cells, based on strain gauge principle, required frequent re-calibration and sometimes even replacements. The environmental conditions in a copper foil treatment line is rather severe which makes the situation even worse.

The main problem with poor tension measurement is wrinkles in the foil when re-winding as well as problems with cone-shaped coils. Furthermore, there is always a risk of production stops when poor tension measurement is provided. In this case, the copper foil can come in contact with the 3kA bus bar with risk of short circuit leading to production stop.

To improve the productivity in the six treatment lines they decided to replace the existing strain gauge load cells with ABB Pressductor load cells. ABB load cells, based on the Pressductor Technology, are rugged enough to stand up to real production environments and provide a stable and reliable tension measurement.

Installations of 18 system of ABB Pressductor load cells have resulted in:
- Better quality of the produced copper foil, less wrinkles.
- Better productivity, due to less production stops.
- Reduced maintenance cost, no need for re-calibration of load cells.

This reference shows that ABB Pressductor load cells have again proven their superior performance and stability.