ABB EM Stabilizer optimizes your galvanizing line

EM Stabilizer reduces vibrations and oscillations in galvanizing lines and other strip processing lines.

EM Stabilizer utilizes electromagnetism to stabilize strips so as to eliminate physical contact.

EM Stabilizer Magnet Module facilitates installation.

EM Stabilizer benefits:
- Lowers costs by reducing zinc overcoating
- Enables faster line speed
- Improves coating quality by applying the zinc more uniformly
- Enhances surface quality by reducing scratch and chatter marks

EM Stabilizer features:
- No physical contact with strips
- Simple and reliable operation
- Low energy consumption
- Available for strip widths up to 2100 mm.
- Can be installed in most existing lines
EM Stabilizer reduces strip vibrations and variations in coating thickness

Typical example:

a) Strip vibrations without (blue) and with (red) stabilization
b) Typical coating weight distribution without (top) and with stabilization (bottom), and potential zinc savings $\Delta \Delta$ (stabilizer) of 0.9 g/m² corresponding to 2 % of total Zinc consumption

Typical power spectra of the strip vibrations

In a galvanizing line, all main vibration frequencies are usually below 10 Hz. Most are related to line speed and the diameter of the pot rolls. With EM Stabilizer, each peak is effectively and significantly reduced.

The EM Stabilizer System

EM Stabilizer consists of:

- 3 pairs of magnets
- Proximity sensors
- Frequency converters
- Cooling water station
- Control system