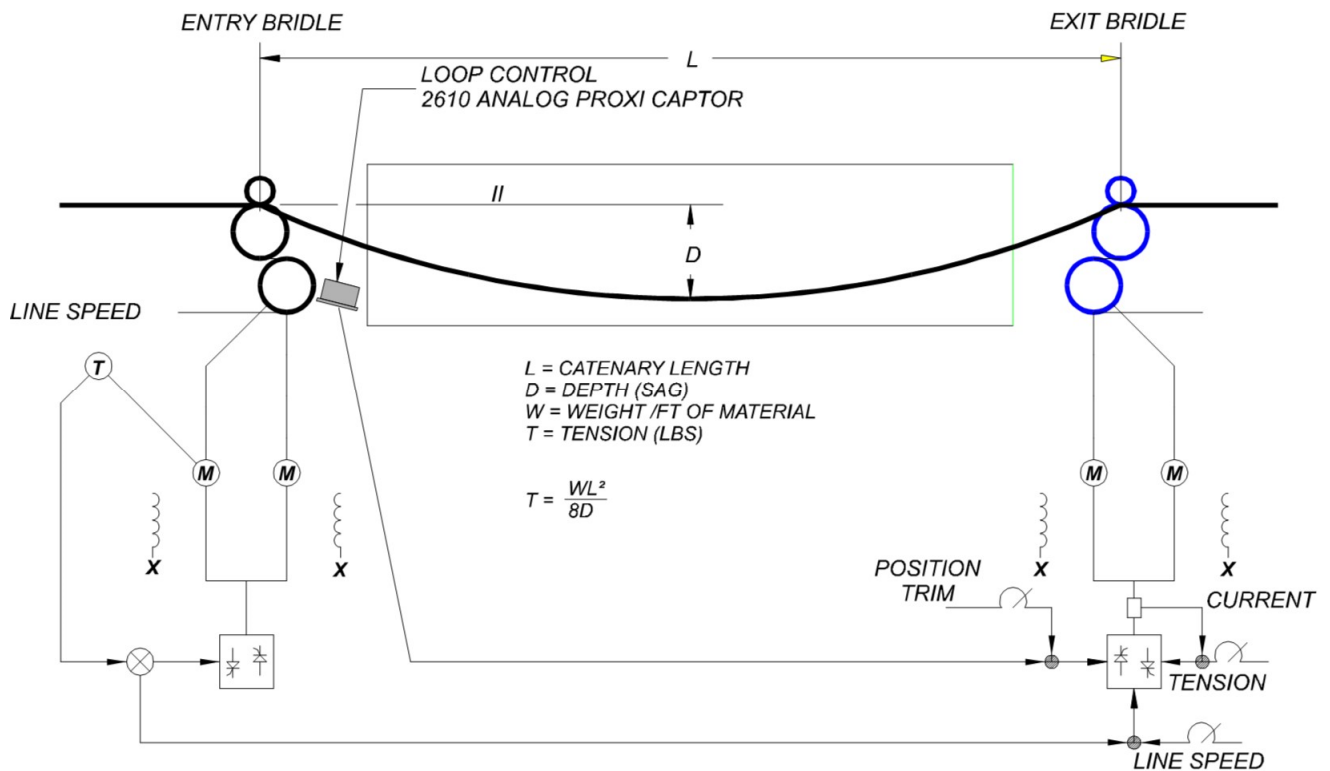


# Catenary loop control

**INTRODUCTION** The environmental conditions in the steel industry are a challenge for any type of control equipment. High temperatures, vibration, excessive dust and contamination are setting the limits for standard equipment. Our sensors have been designed and carefully built to meet the specific demands of the steel industry.



**PROBLEM** For treatment purposes the steel strip is guided through a tank containing a pickling solution. The most effective treatment of the steel strip is achieved by passing it through the solution as close as possible to the bottom of the tank without coming in contact with it.

**SOLUTION** To run the strip as deep as possible through the tank, an analog proxi-captor has been installed to constantly sense the strip position. The proxi-captor is located under the loop and monitors the distance to the steel strip. A signal, which is proportional to the strip distance, is sent to the motor controller. With this simple control the steel strip can be passed through the tank as close as possible to the bottom.

**BENEFIT** Keeping the strip as close as possible to the bottom allows to increase the travel speed of the strip by more than 10%, resulting in a more effective and economical manufacturing process with maximum throughput and a very high constant quality level.