insight tangle detection

tangle detection -
our AI solution for reducing delays in your contistretch process

Reliable - tangle detection supervises your production in real time, stopping the line automatically in case of tangles.

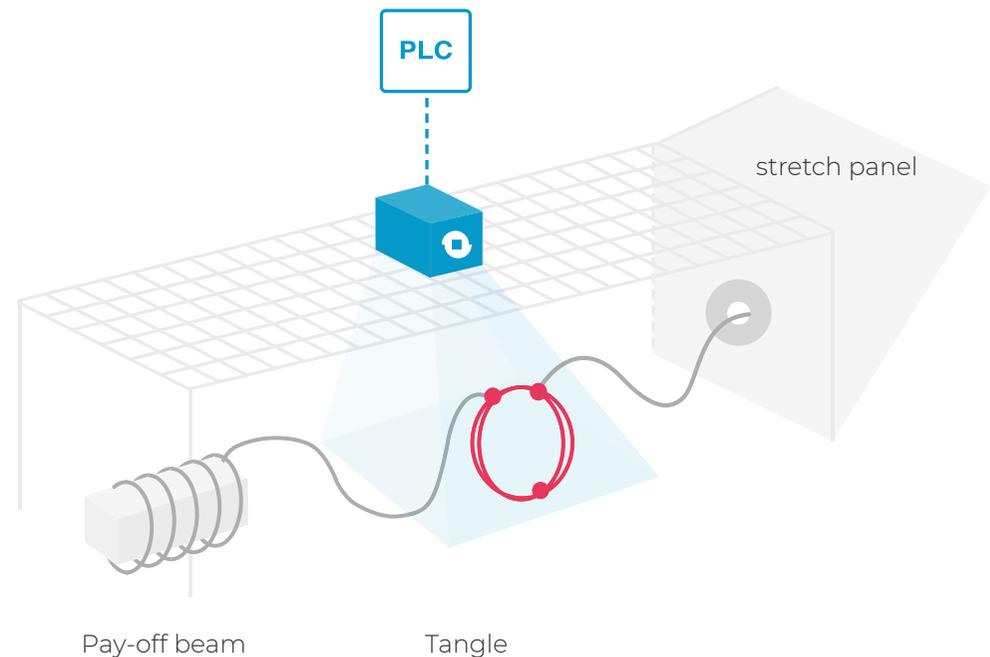**Adaptive** - tangle detection adapts itself to your production, yielding optimal performance for every product.

Minimally Invasive - tangle detection is easy to install, requiring minimal changes to your existing plant.

Zero Maintenance - no mechanical components subject to wear.

PLC

stretch panel

Pay-off beam

Tangle

Customer KPIs

97% less missed tangles

65% delay reduction

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What problem does tangle detection solve?

A common problem in the Contistretch treatment is the formation of tangles. Undetected tangles reaching the stretch panel usually cause scrap and loss of production time reducing the overall yield of the plant.

Existing solutions are manual supvervision being labor intensive and unreliable or mechanical devices being liable to wear and costly to maintain.

How does tangle detection work?

tangle detection constantly supervises your process visually in real time, using state of the art machine vision and AI technology, to tell normal operation apart from entangled wire. With a slim and easy integratable interface to your existing PLC, tangle detection issues stop triggers on detection of a tangle. The only limiting factor for the speed of your production line is the time required to perform a quick-stop.

By feeding production data like diameter and production speed to tangle detection, it automatically adapts itself to your production, optimizing decision making.
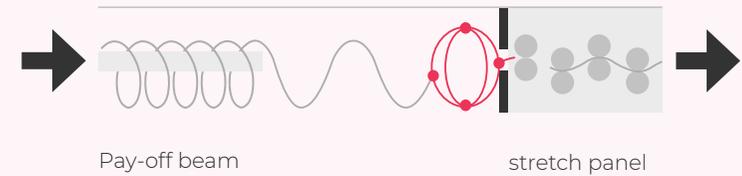
tangle detection setup

tangle detection utilizes a camera in a ruggedized housing and a set of LED spotlights, which can be easily mounted on top of your production line.

The processing unit, an industry standard CompactPCI system, is the core of tangle detection's intelligence. It is directly connected to the camera and to your existing PLC.

Without tangle detection:
An undetected tangle crashes into the wall separating cage from stretch panel, resulting in severed wire and high delay time.

Pay-off beam   stretch panel

With tangle detection:
tangle detection notices the tangle in time and immediately suggests the PLC to stop the line. After resolving the tangle, production can quickly resume.

PLC

Pay-off beam   stretch panel

PLC

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