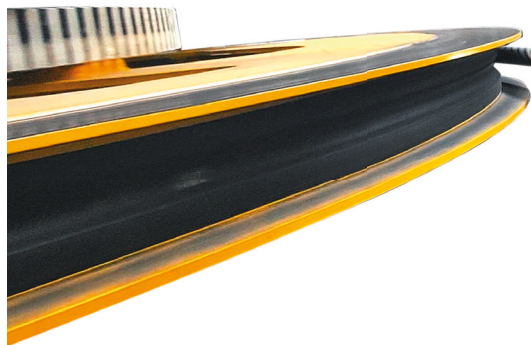


The new digital monitoring system for high-performance ropes is the result of a strong alliance between the rope specialists at Teufelberger-Redaelli, the AI professionals at Raidyn, and the MRI experts at AMC Instruments.



**THREE EXPERTS.
ONE ALLIANCE.
FUTURE-ORIENTED
SOLUTIONS.**



**Alliance for
Intelligent Rope
Monitoring**

ONE STEP AHEAD:

AI-powered inspection and monitoring for steel wire ropes.

THE INNOVATIVE DEVELOPMENT OF THE EXPERT ALLIANCE OFFERS COMPLETELY NEW POSSIBILITIES FOR CAMERA-BASED, VISUAL CONDITION MONITORING OF THE ROPE IN REAL-TIME.

AIM has achieved the goal to monitor high-performance ropes efficiently and permanently. The solution allows for rapid detection of broken wires, corrosion, geometrical imperfections and other critical or moderate damages. The combination of MRT, cameras and AI makes it possible to distinguish between internal and external damages, all of this while an accurate geometrical analysis of diameter and lay-length is performed. The solution provides automatic reports that are simple enough to be clear, detailed enough to be useful and highly customizable. This in turns allows to increase plant availability, reduces downtime and enables predictive and therefore efficient maintenance for the operators.



1 MRT-Device

from AMC Instruments: it is the carrier medium, which explores the inner life of the rope.



2 360° camera

from the software partner Raiydn for the visual inspection with AI.



3 Steel wire rope

from Teufelberger-Redaelli as the specialist for wire ropes.

WE BRING TO LIFE A NEW ERA OF STEEL WIRE ROPE INSPECTION AND MONITORING — POWERED BY AI AND DESIGNED AS A UNIQUE, ALL-IN-ONE SOLUTION AT YOUR SERVICE:

Continuous real-time monitoring

Reduce unproductive time with online measurements of key parameters. Gain a full 360° view of your rope's condition during normal operations, thanks to the seamless integration of Magnetic Rope Testing (MRT) and AI-powered damage detection. Potential issues are identified early — preventing unexpected downtime and improving operational safety.

Full historical records

Say goodbye to incomplete logbooks. Access a complete digital history of your rope's condition - lay by lay - with clear, compact reports automatically generated at user-defined intervals. Track changes over time and make informed decisions based on reliable data, even in remote areas without cloud access.

MRT and vision combined

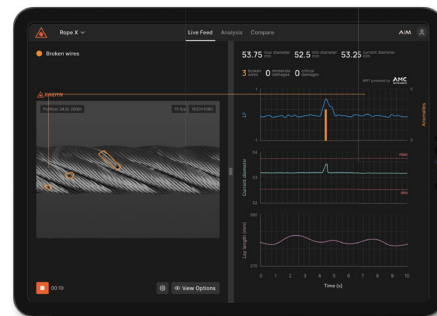
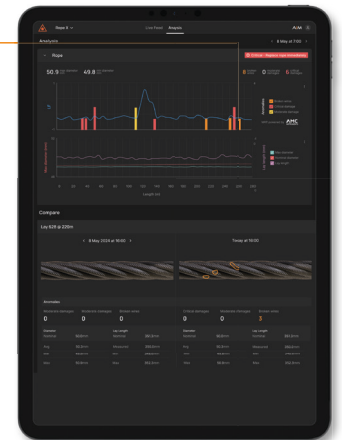
A uniquely integrated hardware and software solution enables simultaneous internal and external rope inspection. MRT detects hidden internal flaws, while advanced visual inspection captures surface damage - all combined into one intuitive system for comprehensive analysis and smarter maintenance planning.

This future-oriented all-in-one solution ensures cost-efficient maintenance. By detecting critical conditions at an early stage, maintenance can be brought forward or alternative measures can be taken to avoid expensive downtime and reduce operating costs in the long term.

You get the data you want and need for your technical documentation

Historical Analysis

The historical analysis and "compare" functionality that allows to select previous reports and understand the progress of the rope state, geometry and when a defect has appeared.



Easy to read, customizable reports

An example of an inspection report that is automatically generated by the software solution. The customizable reports contains all the of the most important geometrical and damage-related information - including MRT and visual information.



ARE YOU READY FOR THE FUTURE OF MONITORING AND DEFECT DETECTION?

Innovation happens now - take advantage of intelligent, AI-supported rope monitoring and maximize the safety and efficiency of your systems. Our experts are available to discuss your individual requirements.



AMC Instruments

focuses on the development of magneto-inductive control devices. Since 2007 they have been producing magneto-inductive devices and supplying inspection services.

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Teufelberger-Redaelli

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Raidyn's software solutions

use the most advanced AI technology in combination with real-time images and videos. They deliver a comprehensive inspection and continuous monitoring solutions across multiple industries.

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