

HELIAX® Aluminum

[Introduction](#)[Facts You Should Know](#)[Literature/Specifications](#)[FAQs](#)

THE ULTIMATE ALUMINUM SOLUTION

Introducing Andrew HELIAX® aluminum cable and Positive Stop™ connectors—a complete solution for unmatched quality and longevity in aluminum RF transmission line systems.

The complete Andrew solution is a systems approach, combining premium HELIAX corrugated aluminum cable with Andrew's exclusive patented Positive Stop™ spring-based, continuous-force connectors.

Working together, the combination of Andrew HELIAX aluminum cable and Positive Stop connectors can stop costly degradation before it starts, helping deliver performance and longevity that is unmatched by any aluminum transmission line installation using smooth wall cable or generic connectors.

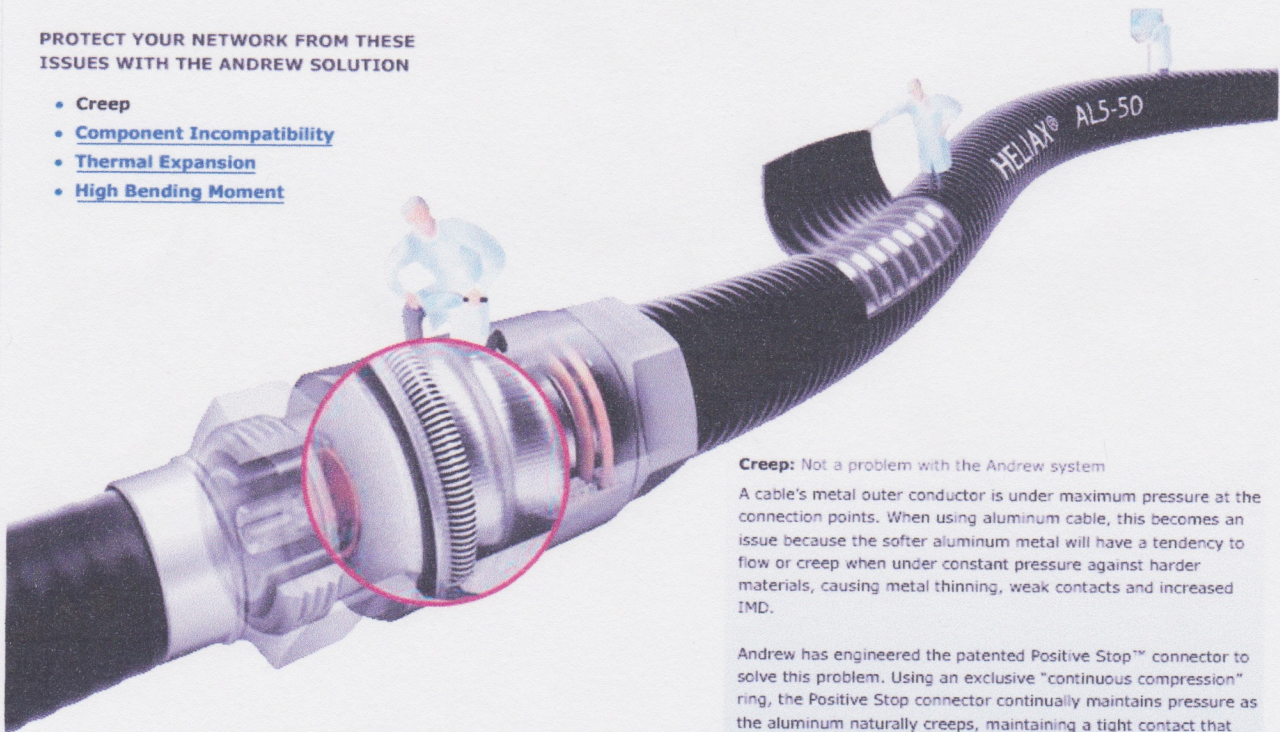
PROTECT YOUR NETWORK FROM THESE ISSUES WITH THE ANDREW SOLUTION



- [Creep](#)
- [Component Incompatibility](#)
- [Thermal Expansion](#)
- [High Bending Moment](#)

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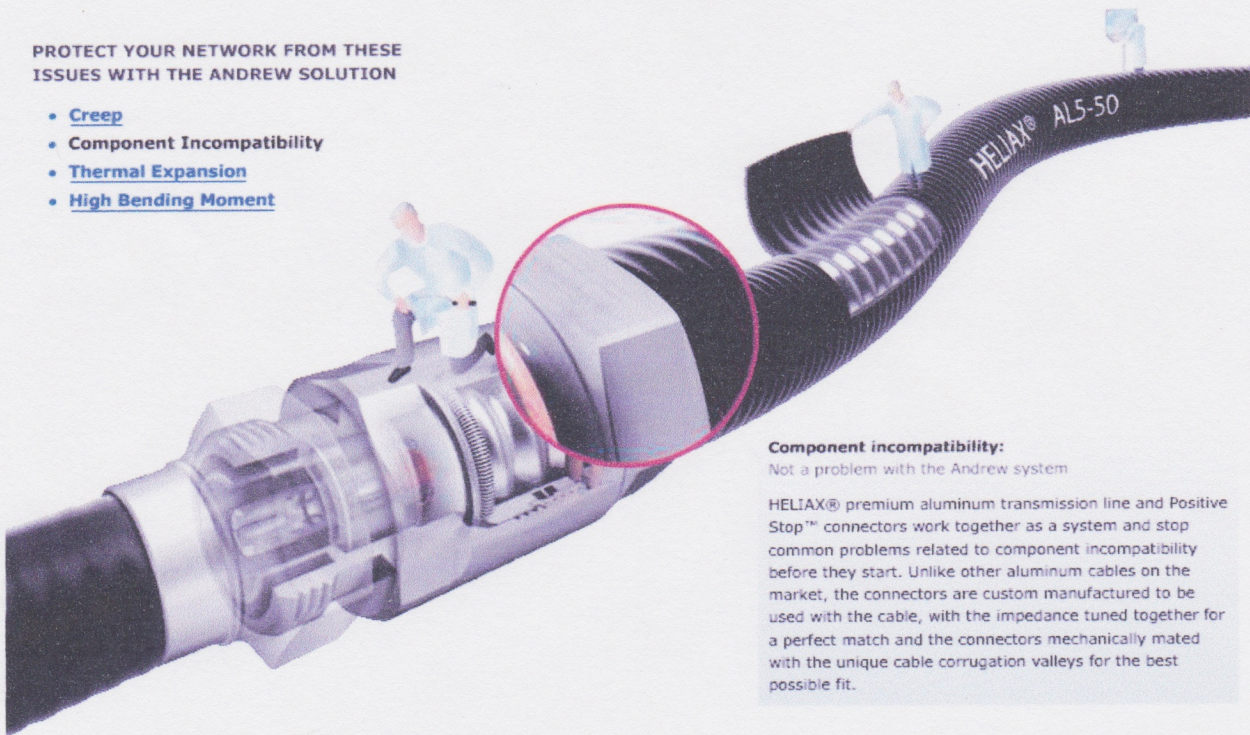
Creep: Not a problem with the Andrew system

A cable's metal outer conductor is under maximum pressure at the connection points. When using aluminum cable, this becomes an issue because the softer aluminum metal will have a tendency to flow or creep when under constant pressure against harder materials, causing metal thinning, weak contacts and increased IMD.

Andrew has engineered the patented Positive Stop™ connector to solve this problem. Using an exclusive "continuous compression" ring, the Positive Stop connector continually maintains pressure as the aluminum naturally creeps, maintaining a tight contact that protects network transmission quality for the long term.

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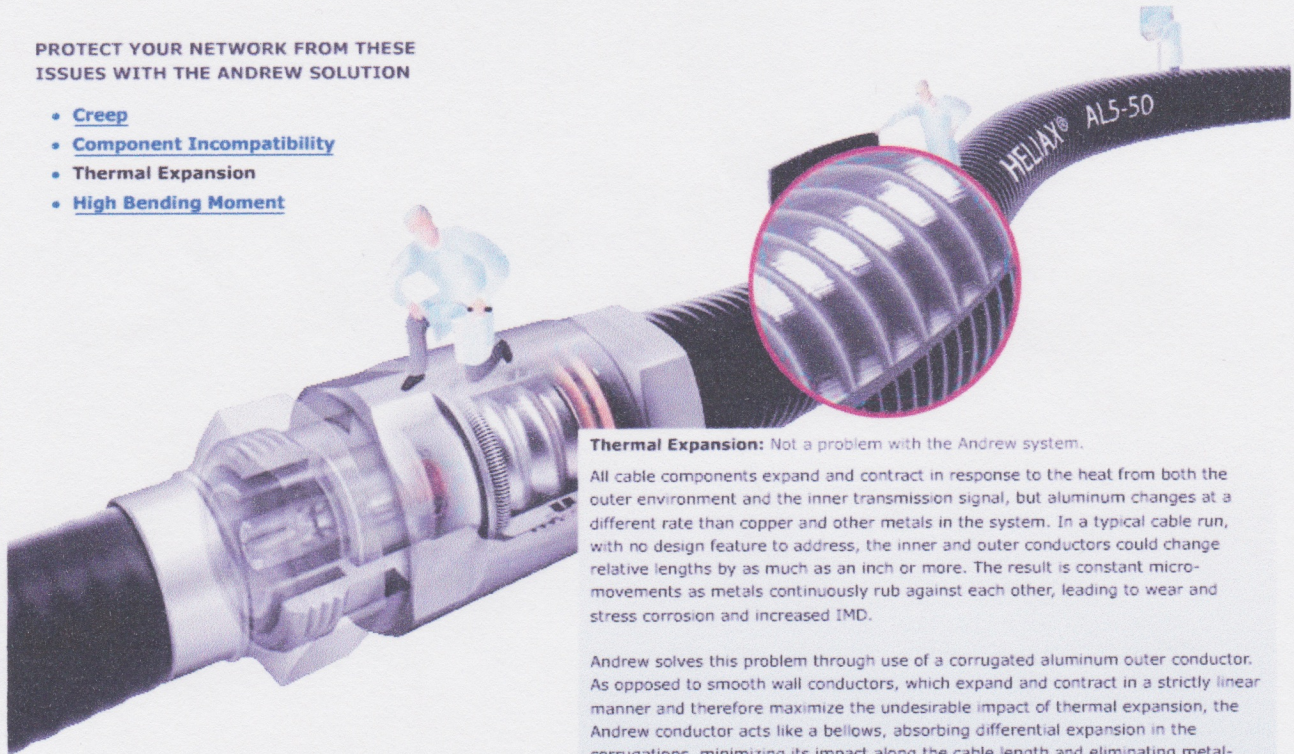
Component incompatibility:

Not a problem with the Andrew system

HELIX® premium aluminum transmission line and Positive Stop™ connectors work together as a system and stop common problems related to component incompatibility before they start. Unlike other aluminum cables on the market, the connectors are custom manufactured to be used with the cable, with the impedance tuned together for a perfect match and the connectors mechanically mated with the unique cable corrugation valleys for the best possible fit.

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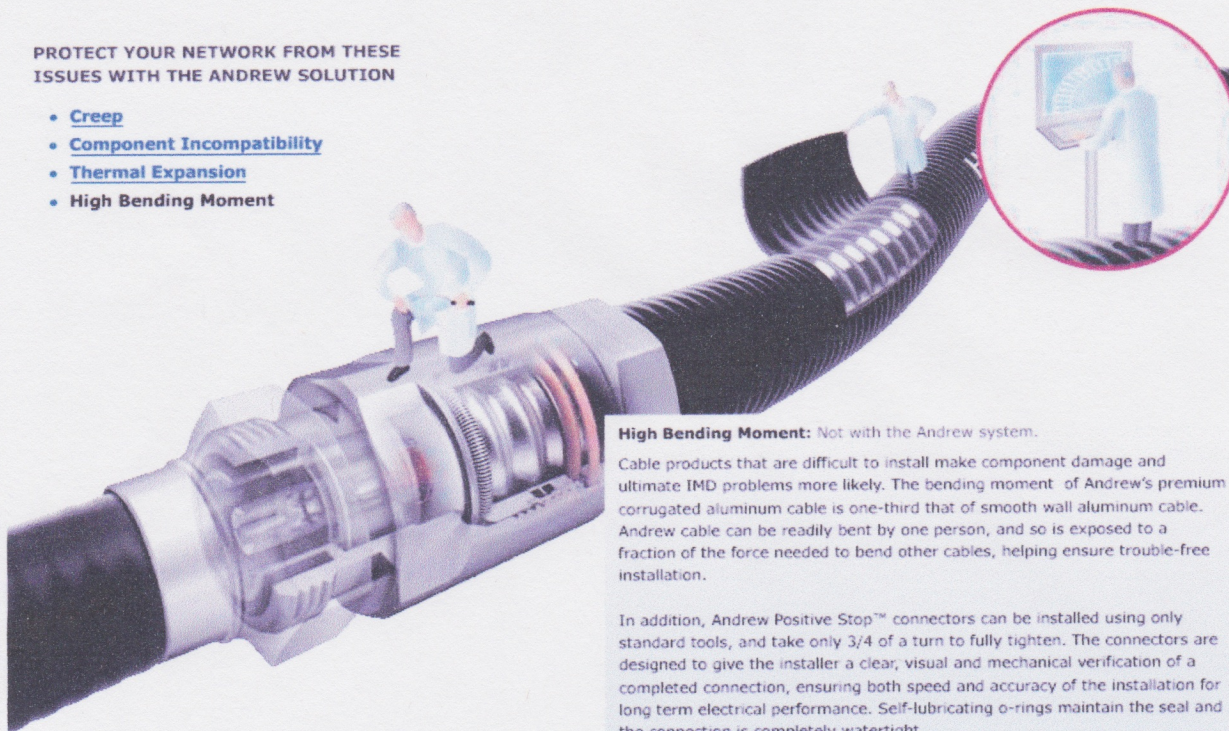
Thermal Expansion: Not a problem with the Andrew system.

All cable components expand and contract in response to the heat from both the outer environment and the inner transmission signal, but aluminum changes at a different rate than copper and other metals in the system. In a typical cable run, with no design feature to address, the inner and outer conductors could change relative lengths by as much as an inch or more. The result is constant micro-movements as metals continuously rub against each other, leading to wear and stress corrosion and increased IMD.

Andrew solves this problem through use of a corrugated aluminum outer conductor. As opposed to smooth wall conductors, which expand and contract in a strictly linear manner and therefore maximize the undesirable impact of thermal expansion, the Andrew conductor acts like a bellows, absorbing differential expansion in the corrugations, minimizing its impact along the cable length and eliminating metal-against-metal friction and wear.

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High Bending Moment: Not with the Andrew system.

Cable products that are difficult to install make component damage and ultimate IMD problems more likely. The bending moment of Andrew's premium corrugated aluminum cable is one-third that of smooth wall aluminum cable. Andrew cable can be readily bent by one person, and so is exposed to a fraction of the force needed to bend other cables, helping ensure trouble-free installation.

In addition, Andrew Positive Stop™ connectors can be installed using only standard tools, and take only 3/4 of a turn to fully tighten. The connectors are designed to give the installer a clear, visual and mechanical verification of a completed connection, ensuring both speed and accuracy of the installation for long term electrical performance. Self-lubricating o-rings maintain the seal and the connection is completely watertight.