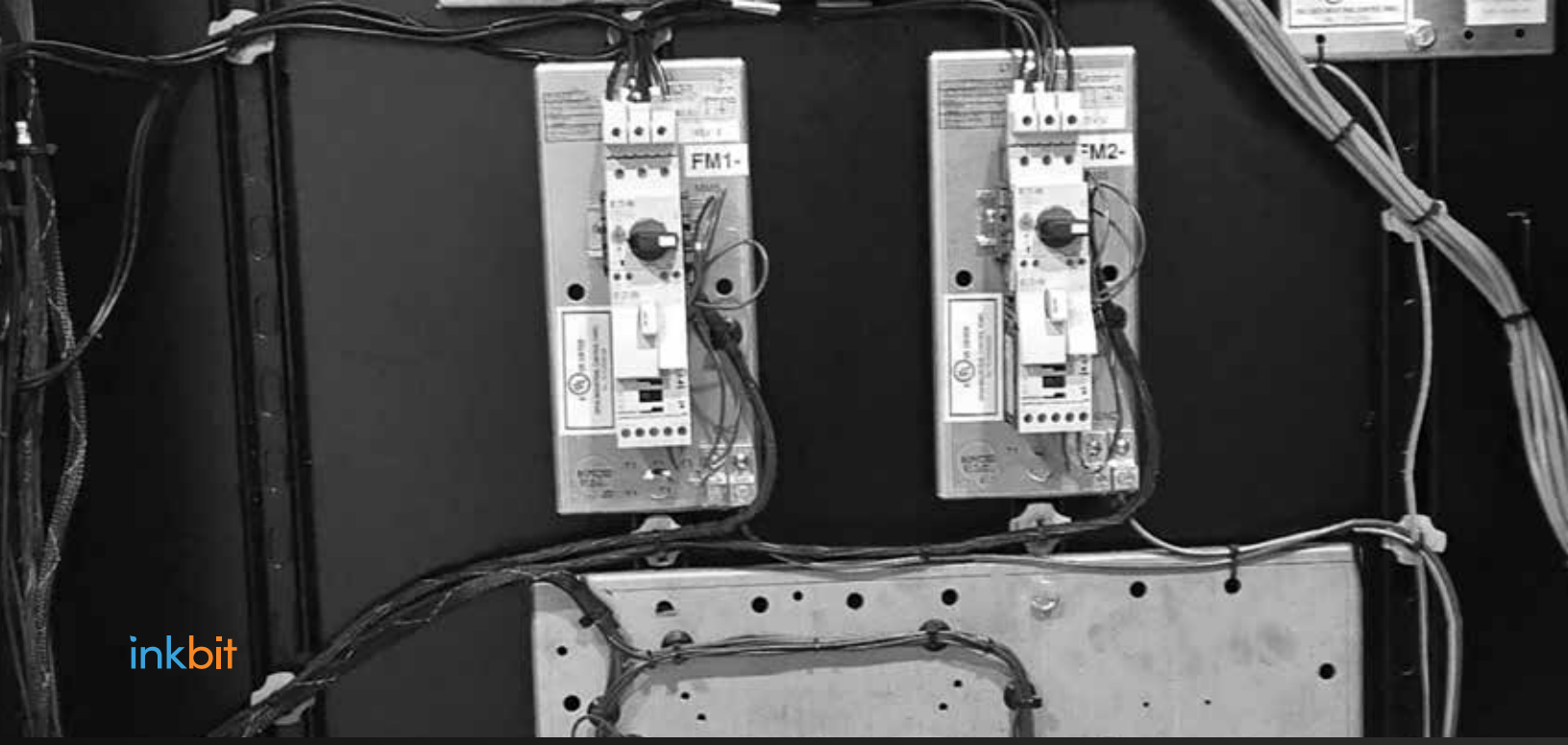


Rewiring the Future of Cable Management

Inkbit x Ingersoll Rand

A Call to Innovate the Mundane

A global appliance leader approached us with a real problem, one that no legacy or traditional processes could solve. Ingersoll Rand needed a modular cable clip that could rotate, absorb vibration, and withstand heat. And needed to have features that allowed end-use across different product lines.

If Ingersoll Rand had produced this specific part leveraging traditional methods it would look something like this; five manually assembled parts, additional tooling, and additional operations to accomplish multi-material features. That approach wasn't scalable, cost-effective, or logically feasible.

Enters Inkbit

We didn't just print a part.
Together we engineered a better process.

Working side by side with their engineering teams, the design was iterated and transformed into a fully integrated, multi-material, monolithic part, and zero post-assembly. What features make it monolithic? A rotating center, mounting brackets, rubber-like bumpers, and thermally stable body.

The Best Part?

Printed and produced in one build, using our Vision-Controlled Jetting (VCJ) platform. No compromise on performance, no post-assembly, and no trade-offs in materials from concept to end-use.

Built for What's Next™

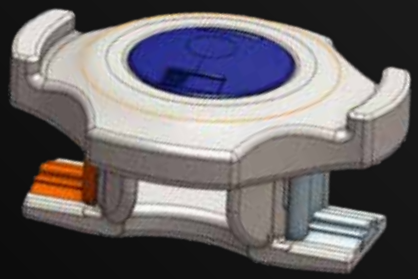
The success of this print-in-place, multi-material functional cable clip enabled rapid scaling across their various product lines, transforming supply chain from static inventory to on-demand fulfillment. Thanks to Inkbit's platform Ingersoll Rand can confidently scale production digitally with seamless options to iterate as needed.

This story helps highlight growing demands across industries for digital manufactured parts that deliver both mechanical function and production readiness.

Inkbit's elite platform is redefining additive manufacturing with its proprietary technology, enabling scalable, true multi-material production across endless applications.

Imagine, the power to go from an idea to production within hours vs weeks and months.

A true game-changer in manufacturing.



Leveraging Inkbit's **Vision-Controlled Jetting™ (VCJ)** platform, we helped Ingersoll Rand move from concept to scale in a matter of *weeks.*

Part Features

- Embedded multi-material for multi-part functionality
- Rotating center printed in-place
- No manual assembly or secondary operations
- No tooling or material changes are required during the build
- Maintains dimensional stability in warm environments
- Complex routing designs enabled to support IR's modular system architecture

Production Advantages

- Fast turnaround from print to finished part with minimal post-processing
- Multi-material parts in a single print run, each part can have unique features or identifiers
- Domestic material sourcing supports faster logistics and supply chain resilience
- Production-grade results from the first build, reducing lead times and qualification steps from prototyping to end use.

Ingersoll Rand®

> *"Every box we build is different. The clip gives us a flexible way to manage cable routing without adding more complexity to our process."*
>
> **– Engineering Manager, Additive Manufacturing** Ingersoll Rand