

CASE STUDY

BACKGROUND

A leading US HVAC manufacturer, widely recognized for premium oil-fired furnaces, was sourcing custom wire harnesses from a supplier in China. These harnesses were integral to their systems and required consistent quality, UL certification, and precision assembly to meet their stringent internal standards.

However, rising geopolitical tension introduced new challenges. When the U.S. government imposed tariffs on Chinese imports, the cost of acquiring these components escalated rapidly.

Concerned about margin erosion and delivery timelines, the manufacturer needed to find a new solution. They had heard about Avnan's multi-location manufacturing capabilities, including production in Vietnam. Avnan was approached for their reputation on engineering support and compliance with North American HVAC standards.

AT A GLANCE



PROJECT OVERVIEW

- Product Manufacturing: Wire Harness
- Project timeline: 6 months
- Project Scope: Over \$100k



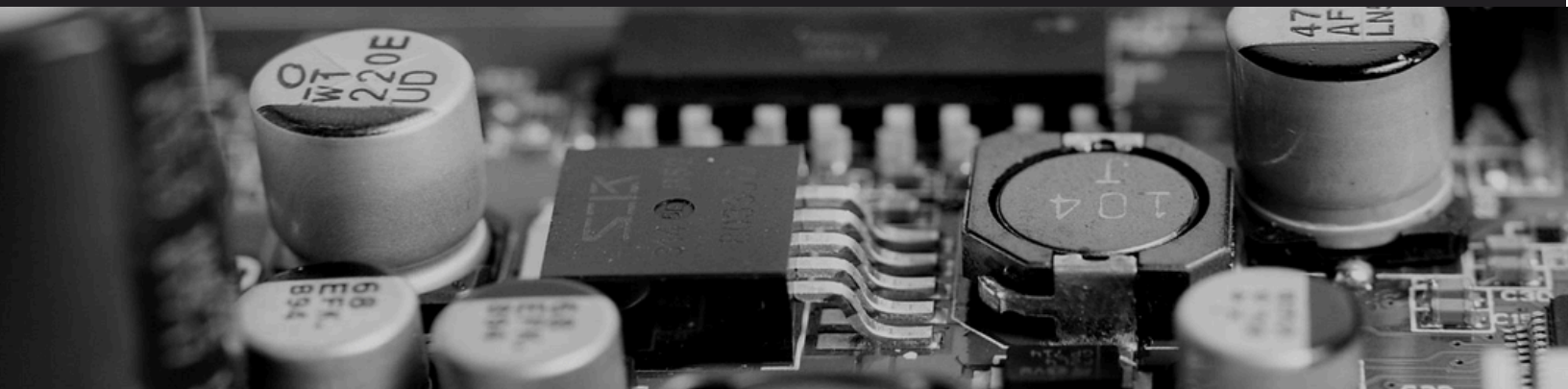
CHALLENGES

- U.S. tariffs on Chinese imports caused sudden cost increases for critical wire harness components
- Existing supplier lacked alternative manufacturing locations or flexibility to shift production
- Needed a partner with fast, cost-effective transition capabilities without compromising quality or lead time



RESULTS

- Seamless onboarding with full technical alignment and UL compliance
- Improved delivery reliability and long-term supply chain resilience



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PROBLEM STATEMENT

The manufacturer's wire harness supplier operated exclusively in China, which meant all imports into the U.S. were subject to new tariffs which added unplanned costs to every unit. This was a critical issue, as harnesses are embedded across all furnace product lines, and shifting cost structures had a direct impact on profit margins.

The client faced time pressure, limited supplier flexibility, and growing concern about future trade policies. Additionally, the current supplier couldn't provide alternative sourcing or logistics options to mitigate risk. To maintain product quality, production schedules, and pricing stability, the manufacturer needed a partner who could act quickly.

The challenge was to find a supplier that offered an alternative to manufacturing in China but also had the engineering and regulatory expertise to ensure a smooth transition with no quality disruptions.



Avnan delivered exactly what we needed. A fast, cost-effective transition out of China without compromising quality. Their team understood our technical requirements right away and executed flawlessly. We now have a more resilient supply chain thanks to their Vietnam facility.

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SOLUTION

Avnan moved quickly to relocate production from China to its ISO-certified facility in Vietnam, which was already equipped to manufacture HVAC-grade wire harnesses. The team worked closely with the client's engineering department to ensure all specifications, drawings, and certifications were aligned with UL and internal standards.

Where necessary, Avnan sourced alternate components without compromising functionality or regulatory compliance. The changeover process included a thorough validation phase, including sample runs and approval testing. Because of Avnan's experience in HVAC controls and electrical assemblies, the transition was executed without disruption. This solution allowed the client to protect margins, reduce geopolitical risk, and strengthen their supply chain through diversified sourcing.

CONCLUSION

Avnan's fast response and global manufacturing flexibility enabled the HVAC manufacturer to overcome an urgent trade compliance issue. By relocating production to Vietnam, Avnan helped the client eliminate tariff-related cost increases, stabilize delivery schedules, and maintain their internal quality standards without delay. Avnan's dual strengths of technical manufacturing expertise and agile supply chain management delivered measurable value to the OEM manufacturer operating in highly regulated, HVAC manufacturing environment.

