



East West

CASE STUDY

BK TECHNOLOGIES



A firefighter in a yellow jacket and helmet, holding a radio, standing in front of a forest fire.

Building Products that Make the World a Better Place— Cleaner, Safer, Healthier & Smarter

About BK Technologies

BK Technologies Corporation manufactures high-specification communications equipment of unsurpassed reliability and value for use by public safety professionals and government agencies. BK Technologies SaaS business focuses on new, innovative public safety smartphone services that will make the first responders safer or more productive.

ABOUT EAST WEST MANUFACTURING®

We are a global manufacturing and engineering solutions company focused on the realization of products, from design through distribution. As an integrated team of designers, engineers and specialists in onshore, nearshore, and offshore manufacturing, we offer a seamless path to scale and an exceptional speed-to-market strategy while driving down costs and adhering to the highest quality standards.

Managing the Supply Chain

SOLUTION: PRODUCT OPTIMIZATION

For years, BK Technologies relied on a large contract manufacturer in Asia to produce their full line of radios. However, issues such as lost documentation and poor communication led to a significant loss of product control. In response, BK decided in 2019 to bring manufacturing in-house with the launch of their BKR-5000 series, handling their own SMT, sub-assembly, and final assembly processes. To support this transition, East West Wisconsin was brought on board to produce some of the PCBAs.

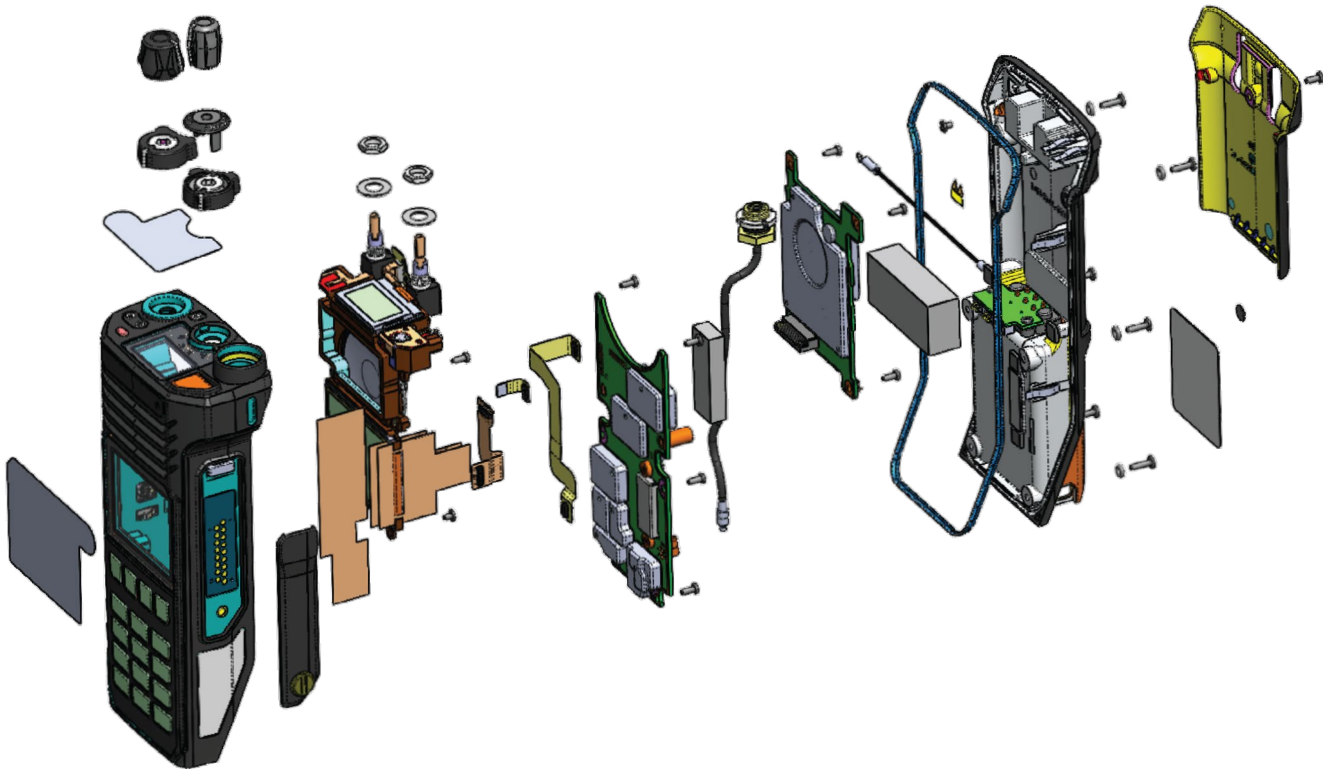
The 2022 supply chain collapse, characterized by scarce components, unreliable transportation, and skyrocketing costs, highlighted the challenges of in-house production for a company of BK's size. Struggling with the complexity of managing a vast array of suppliers, BK began discussions with East West to explore supply chain management solutions. It became clear that partnering with a contract manufacturer with a global presence was essential for optimizing production.

That same year, East West acquired a manufacturing facility in Juárez, Mexico, offering a strategic solution for BK. Mexico's participation in the NAFTA Free Trade

Agreement provided numerous advantages: similar time zones for easier collaboration, lower labor costs, reduced tariffs on materials imported from Asia, and the ability to maintain "Buy America" requirements with the Federal government. Initially, BK moved the production of their chargers, batteries, and cable assemblies to Juárez, achieving significant cost savings. This strategic shift freed up production capacity in BK's own domestic facility for high-value radio builds, allowing them to focus on their core products while optimizing production efficiency and reducing costs.

Delivering on Big Expectations

SOLUTION: GLOBAL MANUFACTURING



BK Technologies held East West to a tight 90-day deadline to launch their project successfully.

To meet this goal, the Juárez manufacturing site needed to establish a dedicated SMT line. Our Vice President of Operational Excellence and Integration committed significant time in Juárez, collaborating closely with the site's general manager to oversee the development of the space, ensuring maximum efficiency and high-quality outcomes.

To meet the unique requirements, we expanded our manufacturing capacity by reconfiguring the production floor layout to accommodate new equipment. These investments were strategically made to handle the production of BK's high-complexity PCBAs with multiple RF shields at greater speed. Not only did East West meet the 90-day launch target, but the quality of the products

exceeded expectations, winning over even the most discerning members of BK's team whose number one priority is achieving 100% quality of these mission-critical products.

This success led to further expansion of the relationship. The production of BK's radio batteries was transitioned from their in-house manufacturing facility in the U.S. to the East West factory in Vietnam. This allowed them to leverage the country's lower labor rates and proximity to Asian suppliers while still maintaining the high-quality standards they had come to expect from East West.

East West's team in Vietnam acted swiftly, setting up lean production processes to begin operations within just three days to scale and meet BK's forecast and TAKT times. At the same time, the Global Logistics Team secured UN-38.3 certification, ensuring the batteries complied with strict regulatory mandates and could be shipped back to the United States without issue.

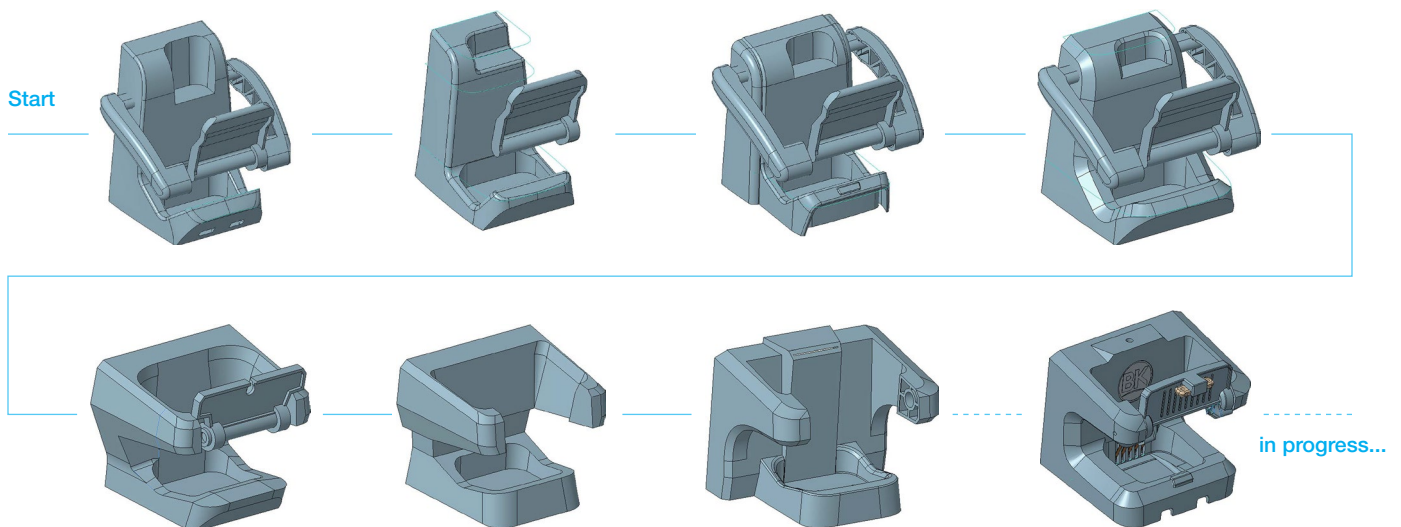
Beyond Manufacturing

While the partnership between East West and BK Technologies initially focused on manufacturing and supply chain solutions, it has since expanded to include a wide range of value-added services as existing projects evolve and new ones emerge.



Beyond Manufacturing (CONTINUED))

SOLUTION: DESIGN SERVICES



A significant challenge was the varying sizes and minimal commonalities between the radios and batteries requiring a flexible design solution.

When BK began discussions with the East West Design Services team, the primary challenge was developing a single charger base, using CREO modeling software, that could accommodate two different radios and two independent batteries, all within significant mechanical constraints. The scope of this project required the utilization of several East West services before reaching NPI and manufacturing.

The objective was to develop a robust vehicle charger base capable of charging both versions of BK's radios or their individual batteries independently. A significant challenge was the varying sizes and minimal

commonalities between the radios and batteries, requiring a flexible design solution. These chargers were intended for use in rugged environments, particularly in fire trucks and emergency responder vehicles. Initially, the project began as a refinement of BK's existing prototype design. However, it quickly evolved into a comprehensive redesign to meet the specific needs of the application, requiring East West's industrial designer to work closely with the mechanical design team throughout.

Following successful prototyping, comprehensive documentation was created for the manufacturing process, including 2D drawings and assembly instructions. Our expertise in Design for Manufacturing (DFM) played a crucial role in refining the design for mass production, ensuring that it was both efficient and cost-effective. The project then moved to the NPI phase, where East West interfaced with the factory to obtain quotes and initiate the production process.

Delivering on Big Expectations

SOLUTION: NPI

Utilizing the NPI team at East West has significantly enhanced BK's engineering efforts, allowing their team to focus on other critical radio projects. By entrusting the NPI process to manufacturing experts, BK has not only saved valuable time but also mitigated potential risks associated with production. East West has driven cost savings by sourcing materials from local suppliers, offering a more efficient alternative to BK's existing supplier base. The subassemblies of the 5000 series radio are completed in our lower-cost facilities in Vietnam before being shipped to Juárez, MX for final assembly, along with the production of PCBAs.



What They Need When They Need It

SOLUTION: WAREHOUSING AND DISTRIBUTION

BK Technologies utilizes East West's warehousing and distribution center just outside of Atlanta to store inventory, allowing for quick product availability during peak demand seasons. To ensure the right amount of product is always available and communication remains seamless, our Account Management team holds bi-weekly forecasting reviews with all relevant business units, providing a forecast commitment within 72 hours.

Years of honest communication, successful collaboration, and mutual trust developed into a multi-layered showcase of how small beginnings can lead to remarkable outcomes.



Small Beginnings Lead to Remarkable Outcomes

The relationship between BK Technologies and East West beautifully illustrates how the right partnership, built on trust and collaboration, can transform challenges and high expectations into opportunities for growth. What began as a need for supply chain support evolved into a masterclass in vertical integration and the power of an expanded manufacturing footprint, leading to a cohesive global strategy.

Contact our Sales
Team to Learn More!

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🌐 www.ewmfg.com