

Leading U.S. Military and Law Enforcement Apparel Supplier



Propper International picks up the pace with Exenta's Shopfloor Control.

Industry

Uniform Garment Manufacturing

Challenges

- » Government contract apparel manufacturer.
- » Plants in Puerto Rico, Dominican Republic, and Haiti.
- » Installed about 850 mobile touchscreen tablets across workstations at two Puerto Rican factories.
- » Saw double-digit efficiency gains with Exenta Shopfloor Control.
- » Sewing operator efficiency has improved 15% on average.

Propper International was founded in 1967 by William S. Propper and landed its first government contract with the U.S. Navy, manufacturing the iconic white sailor caps known as "Dixie cups." As one of the largest official suppliers to the United States armed forces, Propper International has manufactured over 60 million garments for the U.S. Department of Defense – Army, Air Force, Navy, Marines, Coast Guard and Special Forces. Propper also manufactures apparel for the commercial military, tactical, law enforcement, and public safety markets and sells through both retailer channels and online through e-commerce.

If you can name a sewn product used by a military service member, chances are Propper makes it. Across six plants in Puerto Rico, the company produces boots, tops, bottoms, body armor, bags, pouches, accessories and sleep systems. Many products are engineered with special performance features for the modern soldier who is a tactical athlete. The St. Louis, MO-based company also operates factories in the Dominican Republic and Haiti.

Leveraging a Shop Floor Control Solution to Boost Productivity and Gain Greater Visibility

One of Propper's latest achievements has been the successful implementation of innovative shop floor control (SFC) technology. The new software has led to double-digit efficiency gains and brought heightened operational visibility to both managers and production workers. *"The system has really paid for itself and is helping us be more responsive to our customers,"* says Anderson Ward, Propper SVP Global Supply Chain Operations.





Unproductive Time Takes Its Toll

Even with half a century of experience, Propper found itself facing a plateau in plant efficiency. Its skilled workforce was adept at making diverse products, and its plants were accustomed to scaling up and down to meet fluctuating demand from military contracts. But traditional processes for tracking work-in-process (WIP) and piece-rate payroll had locked Propper into a pattern in which unproductive time was taking a measurable toll every single day.

“It’s helping us be faster and more accurate with everything we’re doing right now... instant feedback motivates workers to achieve higher performance levels.”

For example, the company had invested in a biometric time-clock system, whereby employees scanned their fingerprints to clock in or clock out to start and finish their workdays and take breaks. But even with multiple stations across its factories, inevitably lines would form, and the average associate might spend five minutes or more waiting for their turn at the clock. Moreover, if an operator’s sewing machine went down or there was another off-standard situation, a supervisor would need to use a special code at the time clock to acknowledge and authorize the operator’s shift from working on standard to being paid for the off-standard time.

Propper also used gum-sheet and bundle tickets to track each operator's piece-rate production. For each bundle they finished sewing, operators added a sticker to their sheet. At the end of their shift, operators submitted the tickets to their supervisors, who reviewed each one and manually approved any off-standard time. Operators spent about 15 minutes per day managing the bundle tickets and gum sheets. Then Propper's payroll department would take all of this information, plus readings from the time-clock system, and after scanning and inputting the data, calculate payroll payments and generate production reports. All told, this process took about three to five hours for every shift worked. "For practical purposes, we were almost always looking at information two to three days after the fact," says Victor Acosta, Propper's IT lead for business analysis.



“The information is always at their fingertips whereas before they only got visibility to data the next day at best.”

Tangible Results from Real-time Visibility

Propper saw a path forward to eliminate a lot of this unproductive time and glean faster access to actionable information. The answer: a new shop-floor technology from fashion and sewn products supplier Exenta, Inc. The company's solution is designed to work entirely over Wi-Fi networks and standard, off-the-shelf tablets and Android™ mobile devices, and so Propper knew it would not need to add any hard-wired infrastructure to use it. Instead, Propper installed about 850 mobile touchscreen tablets across workstations at two Puerto Rican factories. One of these factories includes a “plant-within- the-plant” specializing in boot production, and so there are a total of three unique operations running Exenta's SFC software.

In addition to the tablets, flat-screen monitors are mounted on the walls of each factory, highly visible to all managers and employees. The tablets and screens are wirelessly connected to the Shopfloor software, which provides real-time visibility into productivity, order tracking, payroll, off-standard time and other metrics. Sewing operators and other workers quickly learned how to use the Shopfloor app and navigate the touch screens. It took approximately two weeks per sewing line to fully implement.

Operators and supervisors now have badges with QR codes and can “clock in” right at their workstation tablet. Propper's work bundles also contain QR codes, and they too are scanned at the tablets, automatically notifying the system about the bundle's location and how quickly it is moving through the factory. Each operator can

track his or her own efficiency through the tablets, up to the minute. Operators use this real-time feedback to pace themselves to meet standards and increase earnings. They also can use the tablets to access image-rich construction instructions and other visual product information.

Team leaders have visibility into individual efficiency and overall line performance, enabling them to offer constructive coaching and help associates improve their output and earn higher pay. Associates and supervisors also can handle off-standard events directly at the workstation, with minimal waiting. The SFC solution synchronizes with Propper's ERP system for payroll and other information management purposes. On average, sewing operator efficiency has improved 15 percent since the SFC solution rollout. "It's helping us be faster and more accurate with everything we're doing right now," Acosta says. "The instant feedback motivates workers to achieve higher performance levels."

In general, the Shopfloor solution has given Propper much greater control over production management. Propper's managers have instant visibility into WIP across multiple sewing lines. The factory flat screens show real-time dashboards of WIP and order status, including any emerging bottlenecks, so that leaders can identify and take action to resolve issues right away. "The information is always at their fingertips whereas before they only got visibility to data the next day at best," says Larry Barber, a member of the IT department who took responsibility for managing all SFC implementation and training.

Propper's SFC implementation strategy is to go live one plant at a time. Given the success of the first three plants in Puerto Rico, Propper expects to roll out the Exenta's Shop Floor Control solution at its Haiti and Dominican Republic factories by year end. Leveraging this new technology, Propper continues to earn its stripes as a high-quality and reliable supplier of top-notch military apparel and gear.





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