



IMPLEMENTATION
ENGINEERS®
BEYOND CONSULTING

IX® Case Study

Realizing Hidden Capacity: Rapid Improvement in Mattress Manufacturing





307%
throughput
increase

32%
reduction in labor
cost per unit

A leading mattress manufacturing company embarked on a strategic initiative: relocating its production operations from two facilities in Utah to a plant in Georgia. The move aimed to streamline operations and better serve growing customer demand. However, post-relocation, the company faced significant challenges—its newly transferred assembly line struggled to keep pace, producing just 75 mattresses per shift while incurring high labor costs that eroded profitability.

Recognizing the need for urgent action, the manufacturer turned to Implementation Engineers (IE), a trusted partner renowned for delivering rapid, impactful results. Within days of the initial outreach, IE deployed a seasoned team to the Georgia facility, ready to tackle the challenge head-on. What followed was a 10-week transformation that not only met ambitious goals but uncovered untapped potential, positioning the manufacturer for long-term success.

The Challenge: Scaling Production to Meet Demand

The company's leadership set a bold target: increase assembly line output from 75 mattresses per shift to 300—an improvement of 300%. Beyond throughput, they sought to reduce labor costs per unit by 32% and establish a foundation for sustainable growth. The stakes were high—failure to meet rising demand risked lost market share in a competitive industry known for innovation and efficiency.

Turning Vision Into Value, Fast

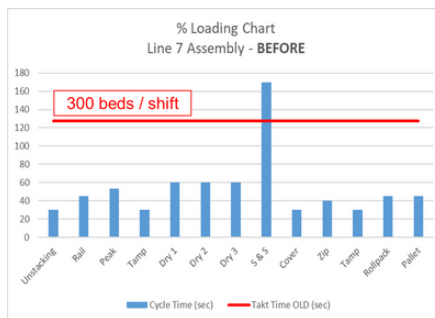
Implementation Engineers brought a proven approach rooted in the Toyota Production System (TPS), combining Lean principles, Kaizen methodology, and Production Preparation Process (3P) expertise. IE's team designed and executed a 10-week series of Kaizen Blitzes—intensive, short-term improvement projects targeting the seven flows of manufacturing: information, materials, tools, engineering, sub-assembly, equipment, and people.

- **Flow Optimization:** IE restructured material flows with just-in-time delivery and optimized layouts, slashing wait times. Standardized work instructions, Kanban systems, and video-based training streamlined information and work processes, while 5S principles ensured tools were organized and accessible
- **Workforce Empowerment:** Comprehensive Lean training and Leader Standard Work empowered employees to identify inefficiencies and sustain improvements. Visual factory tools like Pacer Scoreboards provided real-time performance visibility
- **Equipment and Engineering:** Machine startup/shutdown checklists and engineering collaboration minimized downtime and unlocked process innovations

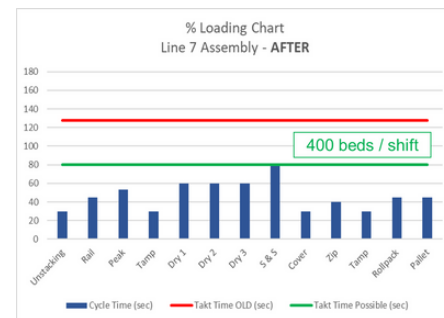
Through a Gemba-focused approach—working directly on the production floor—IE's team rapidly diagnosed bottlenecks, tested solutions, and iterated with cross-functional teams. By week 5, the line hit 305 mattresses per shift, surpassing the initial target. Deeper analysis revealed even greater potential: the line was capable of producing up to 480 mattresses per shift with sustained improvements.

Line Balancing

Start of Shift / End of Shift Checklist



Before

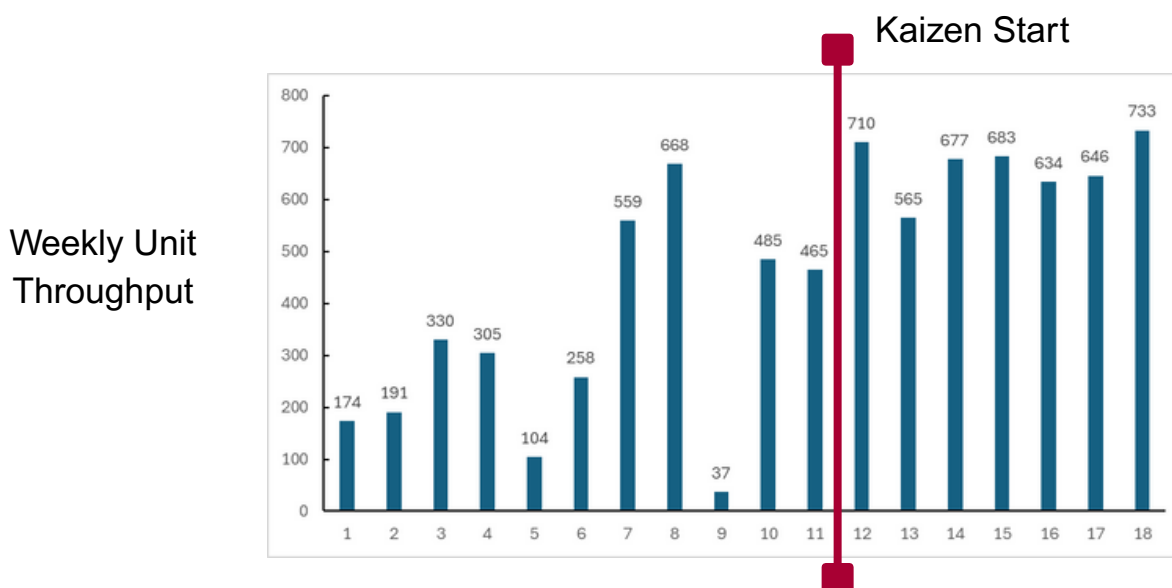


After

Results

The partnership delivered transformative outcomes:

- **307% Throughput Increase:** Output soared from 75 to 305 mattresses per shift, with capacity identified for 480—a game-changer for meeting demand
- **32% Labor Cost Reduction:** Efficiency gains lowered labor per unit, boosting profitability
- **Cultural Shift:** Enhanced skills, employee engagement, and a continuous improvement mindset positioned the workforce as a driver of future success
- **Strategic Scalability:** The optimized operation provided a blueprint for growth, adaptable across other lines or facilities



Why Implementation Engineers?

C-suite leaders face constant pressure to deliver results—fast. Implementation Engineers stands out as a strategic partner that executes. Our hands-on, results-driven approach ensures rapid value realization, from the shop floor to the bottom line. We don't stop at meeting targets; we uncover hidden potential, aligning operational excellence with your broader business strategy.

For this manufacturer, IE turned a production crisis into a competitive advantage. Across industries, we've done the same—driving throughput, reducing costs, and building resilient operations. When your organization needs to move from vision to value, Implementation Engineers is the partner to make it happen.

Let's Get Started

- Schedule a meeting with our team to discuss how Implementation Execution (IX®) can help your organization achieve its goals. Submit an IX® request on our website at www.implementation.com
- Visit www.implementation.com to read more about IX® and how we have helped our clients create sustainable results
- Follow us on LinkedIn to stay up to date with the latest industry insights and updates. Join our network to access exclusive content and stay connected with our team of experts

Learn More: www.implementation.com

