

CASE STUDY

## Parker Hannifin Composite Sealing Systems Division



Electronic Kanban & Lights-Out Manufacturing for  
Faster Delivery and Stronger Customer Support



Delivery reliability, productivity, and customer  
support under an electronic Kanban model

### Overview

Parker Hannifin CSS, the aerospace sealing division of global manufacturer Parker Hannifin, has been a Martindale customer since 2005.

When Parker launched a new electronic Kanban initiative to streamline procurement for frequently recurring parts, the system eliminated manual purchase orders and required suppliers to respond to real-time demand with significantly shorter lead times.

To support this initiative, Martindale invested in advanced lights-out manufacturing technology, redesigned internal workflows, and scaled capacity without increasing headcount.

The result was a production system capable of reliably delivering aerospace-critical components while improving responsiveness, productivity, and long-term customer support.

### Challenge

Parker Hannifin CSS launched a new electronic Kanban initiative, referred to as KanbanBox, to streamline procurement for frequently recurring parts.

**Parker required significantly shorter lead times than Martindale's standard production schedule.**

Before this change, each order required a buyer to create and send a discrete purchase order. With KanbanBox, replenishment is triggered automatically when parts are consumed on Parker's production floor.

This shift raised the bar for supplier performance, requiring lead times to decrease significantly, while still maintaining aerospace-grade reliability. If Martindale could not support the initiative, Parker would have been forced to evaluate other suppliers to achieve its objectives.

## Solution

Kanban is a pull system. Nothing is started until it is actually needed. In Parker's system, when parts are used, a signal is generated (delivered via email) that functions as the Kanban "card." Martindale turns that signal into an internal sales order.

**"Instead of pushing work forward based on forecasts, Kanban pulls work forward based on real demand."**

—Tony Martindale, Martindale President

This approach reduces procurement burden by eliminating the buyer's role in generating purchase orders for recurring parts.

To consistently meet Kanban lead times, Martindale invested in a Kitamura machine capable of 24-hour, unattended production.

Unlike standard machining where an operator must load and unload parts at each cycle, the Kitamura uses a carousel system with multiple tombstones, enabling the machine to run through many setups automatically without operator intervention.

The team first ran a trial with a small number of parts, then expanded to additional part numbers as the system proved successful.

Martindale implemented this without adding production staff, while creating a new internal engineering position to support the new technology and programming demands.

**Installed end of 2024. First runs in early 2025. Expanded to multiple part numbers by mid-2025.**

## Results

With electronic Kanban in place and lights-out manufacturing online, Martindale reduced lead times and increased production capacity while supporting a demanding aerospace customer.

Martindale consistently meets Parker's delivery requirements, often delivering early when parts are available ahead of schedule.

KanbanBox reduces waste and streamlines procurement, but it only works when suppliers can deliver consistently within tight windows.

Martindale's investment enabled Parker to reduce procurement friction for recurring parts while maintaining continuity and reliability for aerospace-critical components.



**Lead times reduced by 50%**



**Capacity equivalent to three or more traditional vertical machines**



**More Parker part numbers supported under Kanban, with room to expand**



**Improved delivery responsiveness aligned with Parker's production needs**



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