

Overcoming the 24 to 48 hour paradox

What's the "24 to 48 hour paradox"? It's a phrase we use to describe when businesses and government agencies grow overly reliant on 24 to 48 hour lead times, to the extent that spot buys and emergencies become a main way of procuring product. Any organization looking to become more efficient should understand the concept and work to move beyond this type of "broken" supply chain.

Here's how the paradox works: Because product can be shipped in 24 to 48 hours via UPS or FedEx (the current best practice among transactional suppliers), the buyer isn't motivated to adequately plan ahead – a problem that's exacerbated by transactional suppliers' limited reporting, which tells you "who, what and when" but isn't set up to discern usage trends. Meanwhile, the transactional supplier has no incentive to anticipate future needs – they can't possibly respond any faster than 24 hours anyway. So, the cycle feeds on itself in a loop of urgent demand, satisfied by 24 to 48 hour supply, resulting in high transaction costs, stock outages, downtime, and lost profit opportunities. Thus the paradox: 24 to 48 hour lead time, ostensibly a good thing, actually produces negative effects.

Fastenal's network of 2,700 local stores is designed to help customers eliminate this cycle, and all of the waste that come with it.

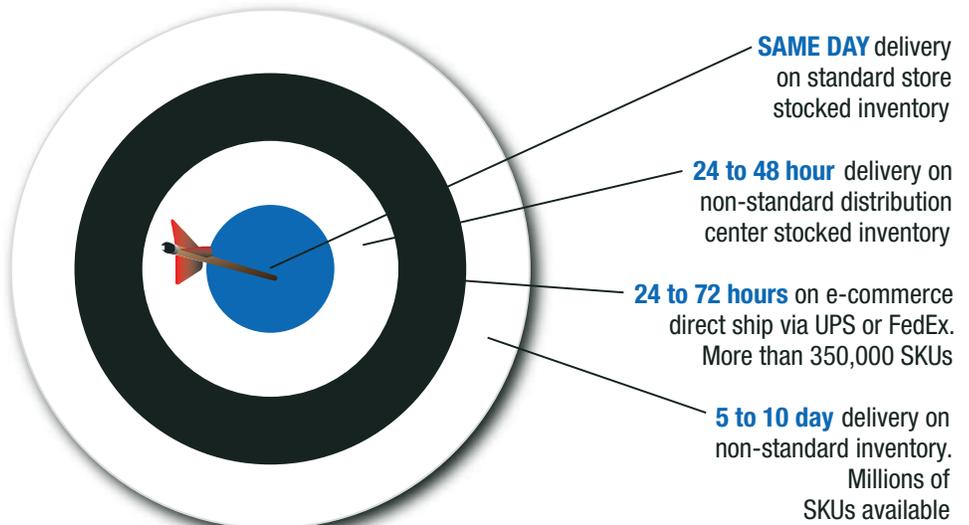
Because each store offers a broad range of standard and tailored non-standard inventory to *anticipate* local customers' needs, the majority of transactions are for product that's pulled right off the local store shelf, representing same-day service. Stores can also manage a lean flow of product directly to customers' stock areas – including **vending machines** and other point-of-use locations – ensuring that just the right amount of product is always available where it's needed, BEFORE it's needed.

Growing the Same-Day Service Target

Let's take a closer look at how a local Fastenal store works to monitor a customer's usage and continuously improve the rate of same-day service (represented here by the blue "bull's eye" at the center of the target). When a customer first starts doing business with the store, there's no purchase history to shape the local stocking model. The store can provide immediate availability for standard store-stocked items or any contracted items, but at this early stage, orders for non-standard items still need to be shipped in.

New Customer

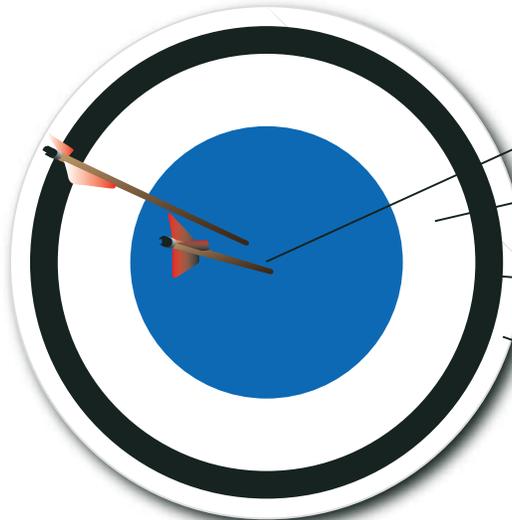
- No purchase history to drive local inventory stocking model
- Fastenal's distribution system is designed to grow the "inner circle" based on usage patterns



That begins to change over the first few months, as purchase history develops and usage is monitored on the regional and local levels. Commonly used non-standard products are brought into the nearest regional distribution center, increasing 24 to 48 hour product availability. More importantly, the local store begins to tailor its inventory to anticipate the customer's needs, making a broader range of needed items available for immediate pick-up or same-day delivery.

1 to 3 Months

- Purchase history and reporting drives local inventory stocking model. Trends in usage begin to emerge
- More standard and non-standard inventory is stocked locally to anticipate needs
- Increased same-day and 24 to 48 hour delivery
- Diminishing stock outages and emergency buys



SAME DAY delivery on standard store stocked inventory

24 to 48 hour delivery on non-standard distribution center stocked inventory

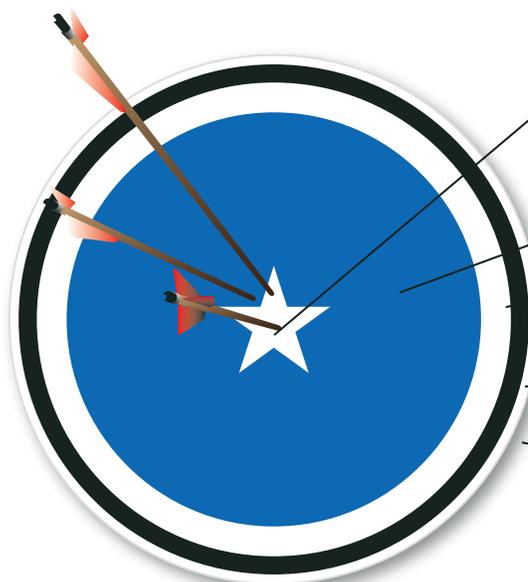
24 to 72 hours on e-commerce direct ship via UPS or FedEx. More than 350,000 SKUs

5 to 10 day delivery on non-standard inventory. Millions of SKUs available

During the 3 to 6 month timeframe, the bull's eye gets even larger as usage trends become more defined, the local stocking model is further honed and, as a result, spot buys and emergencies become increasingly rare.

3 to 6 Months

- Purchase history and reporting establishes local stocking model and anticipates usage
- Same-day and 24 to 48 hour inventory used to replenish min/max levels for VMI/Vending
- Significant cost savings realized
- Reduced total cost of ownership
- Spot buys and emergencies rare



VMI and Vending place product at point of use BEFORE needed

SAME DAY delivery on standard store stocked inventory

24 to 48 hour delivery on non-standard distribution center stocked inventory

24 to 72 hours on e-commerce direct ship via UPS or FedEx. More than 350,000 SKUs

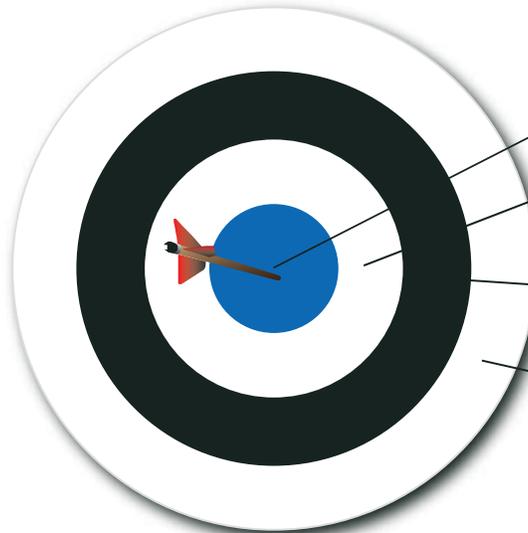
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In many cases, a **vendor-managed inventory (VMI)** and/or **vending** program is also put in place, extending the flow of product right to the customer's point of use. In this case, product is available BEFORE it's needed, eliminating lead time altogether.

As part of our VMI programs, local Fastenal store personnel organize and bar-code the customer's stock areas, work with them to establish strategic "min/max" inventory levels, and continuously monitor and replenish their stocking locations to keep inventory levels within that targeted range (which evolves over time based on usage trends). Stock-outs and excess inventory are eliminated. The process is dramatically simplified. And labor is freed from tasks like cycle-counting and disbursement to focus on core business activities. The graphic below depicts this transformation, which applies to vending as well as VMI:

Before VMI

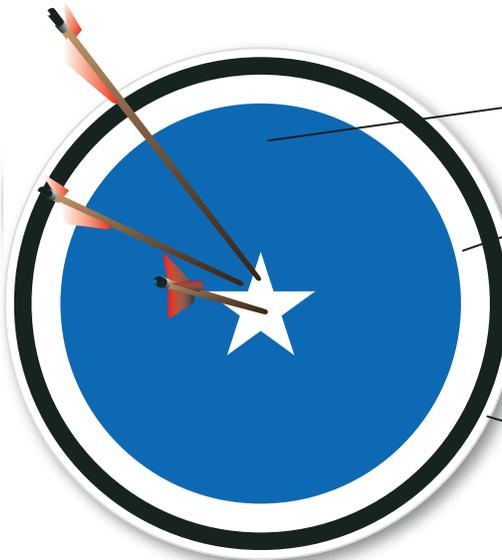
- The bull's eye = investments in core business activities
- The black & white rings signify non-value-added costs – i.e., the "other things"
- Our goal: Grow the bull's eye by allowing you to eliminate unnecessary work and costs



- Core business activities**
Things that generate value
- Cost to acquire product**
Sourcing, cutting POs, freight, managing vendors, etc.
- Cost to manage product**
Labor required for receiving, cycle-counting, disbursement, etc.
- Cost of possession**
Cash tied-up in inventory, sq. ft. required to store inventory, etc.

After VMI

- Fastenal manages a lean flow of product to your stocking locations – with minimal paperwork and detailed usage reporting



- Core business activities**
Things that make generate value
- Cost to acquire product**
Reduced through vendor consolidation, freight reduction, PO/invoice reduction
- Cost to manage product**
Fastenal handles routine inventory management tasks, freeing up labor for value-adding work
- Cost of possession**
Fastenal stocks inventory locally and regionally – *so you don't have to*

In short, the customer is able to spend less time and money on "the other things" and focus more capital on core activities – which is what Lean is all about.

To learn how Fastenal can help streamline your product flow and break free of the "24 to 48 hour paradox," [contact your local Fastenal store.](#)