

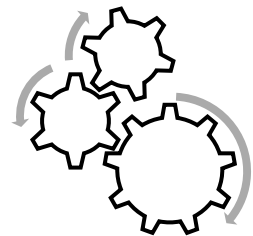


Direct Line Feed - When Material Availability and Transaction Cost Matters

What is Direct Line Feed (DLF)

DLF does not have any precise definition in the academic world. But it is often mixed with Vendor Managed Inventory (VMI). However, the perspective can be much wider. Usually, DLF is provided by a vendor to customer in so called "All inclusive" contracts where the vendor takes care of replenishments directly at the point of consumption. Availability, and transactions costs have a big impact in item costs. This business model is typical, for example, for fasteners and some other indirect categories like health and safety items.

Many LEAN -tools support DLF. Components and flow can be guided by Kanban cards or the process can be controlled by pull flow principle. *Toyota Production System* has been used for decades as a master source for LEAN strategy. It has been the original model for building an effective and high-quality production process. Material flow is designed to feed the consumption at the right time with the right amount. To achieve the highest accuracy of the resource utilisation, levelling of the material flow is required. From the material management point of view, DLF is seen as one of the processes to create material availability for production.



DLF and procurement process

In procurement, production materials can be divided into three categories based on the differences in required engineering work, consumption fluctuation, and material costs.

Items with high level of engineering require procurement to take an active role. The share of customized engineering work must be considered, in addition to the item costs. This category requires frequent bidding activity. These items might not be suitable for DLF due to the non-standardized product features.

Standard items with fluctuating consumption levels form the second group. Raw material cost has a big impact on the item price. Typically, these items are stainless steel components or castings where alloy surcharges affect the total price. Procurement usually takes care of bidding rounds among several accepted suppliers.

The third group consist of *items with low value and high availability requirements*. Usually these are fasteners and other items that keep the production process rolling. Without these, so called MRO, items, the delay in process might have very expensive consequences. To provide the needed availability level, vendors' transaction costs have a big impact in item pricing. Thus, significant value is in this replenishment process, in addition to product features. Typically, vendors offer several options to build direct replenishment process to customer. Many times, pricing is "All in" type with delivery term DLF.

What if the buyer owns DLF?

LEAN is teaching us to collaborate closely with the vendors. The goal is to develop the process by avoiding waste. And so, develop process competitiveness against competitors processes. Often, DLF is applied where the service part creates value for the low value items. Sometimes even 70-80% of the total item costs. Vendors also try to lock the customer relationship with their own vertical delivery method. For example, by introducing technical solutions for DLF that are closed for other vendors. Thus, making it hard to break down pricing structure to organise proper tender process.

Could direct line feed be owned by the buyer and how would it make a difference to manage these items? The costs of DLF, replenishment process and material management, is then buyer's responsibility. The business case depends on the spend of the category and negotiation position at supplier market to really understand pricing for the delivery term "DLF".

When the ownership of the DLF process is on the buyer's side, relevant resources in procurement activities are required. To achieve better cost control and process efficiency, active development is needed. This approach is often in conflict with MRO vendor interests. However, the gains might be substantial. Then it is possible to organize RFQ rounds with relatively low procurement costs. Changes to supplier base are easier as the differentiating replenishment processes are excluded in bidding, that might not be in the interest of MRO vendors. This sets certain requirements for the buyer. One must really know the items, their features and material differences. Also, there must be willingness to change the process and take the related risks. Naturally, item pricing must reflect the new delivery term.

DLF in future

Evolving material management tools and automation can challenge DLF ownership and the business case of the MRO vendors. Rising volumes in global e-commerce are pushing parcel logistics service providers to develop their services at consumer markets. Delivery times get faster, batch sizes get smaller which require regional fulfilment centres with efficient delivery process. This also creates pressure on the industrial side too. One way to implement DLF in

more efficient way is to establish bigger hubs that provide replenishment service for a single factory with good response times and reasonable costs. Future will show, how buyers' increasing control over the process challenges the local MRO vendors' branches.

When looking for alternatives for DLF technology, challenge your current knowledge. Make sure to check the latest in the market: [Agilon® automated warehouse - manage and handle thousands of packages efficiently | Konecranes](#)

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