

## Whitepaper

# 3 WAYS AS/RS BUFFER SYSTEMS CAN STREAMLINE KITTING

How an AS/RS system can expand capability as well as increase efficiency and quality in production preparation operations.

The Future of Automation



## The realities of kitting for production

In a high mix low volume production environment, keeping production stocked with the right components for the build is a big challenge – especially if the products made have only minor BOM variations. In these occasions, manufacturers turn to offline kitting to try to make sure the right inventory goes to the right jobs.

While kitting can go a long way to managing the differing parts lists, integrating the kitting process in a productive manner can present its own friction points. The process of picking all the necessary components for a build is time consuming, but one of the biggest issues is what happens when that time is far different than the actual product production time?

In a perfect world, the kitting process would finish just in time to take out to the production floor. Most times that's not the case. Sometimes Kitting finishes its process much earlier than Production needs them. Picked jobs stack up and wait, filling the production areas, getting lost on the floor. Or worse, waiting kits could get slowly cannibalized for more immediate jobs.

Of course, the opposite could also be an issue; Kitting can't put together jobs as fast as production needs them. This situation could stem from a number of factors. The amount of parts needed to be picked takes longer than the production run required. The Kitting area is not large enough to accommodate the amount of jobs needed in the same shift. There may just be not enough room to house all of the required kits per production shift combined with the prior factors.

These situations can be solved through the use of an AS/RS based buffer system.





MWES' AS/RS systems are specifically designed to be installed in pre-existing production facilities with the express purpose of not only streamlining production operations but giving square footage back to manufacturing operations. The systems are also designed to be easy to install, expand and operate. The AS/RS system is controlled by touchscreen HMIs with an easy to understand user interface that makes it intuitive for workers. The MWES system goes a step further in allowing for integration into production scheduling systems and monitoring inventory tracking.

How does all of these AS/RS buffer system attributes translate to increasing the efficiency of kitting operations? The system provides an automated storage and tracking system that reduces a variety of bottlenecks in storing, locating and managing the kitting process and integrating it with production needs.

## Allowing kitting to occur on different shifts than production

When production takes less time than kitting, kitting becomes the bottleneck. One method to offset this issue is to extend kitting operations to other shifts. The MWES AS/RS system can make this happen by creating locations to store finished kits much more efficiently. These off-shift kits can be retrieved as necessary without production waiting on the kits to be completed. This allows a decoupling of kitting from the production environment, reducing kitting's ability to cause drag on production operations.



## Storing finished kits in easily trackable and retrievable locations

The MWES production buffer system is designed for high density storage, which makes it an excellent system for storing picked parts for specific production jobs. The system is designed to make it easy to store and retrieve items. For instance, operators could use the AS/RS system's interface to find materials by job number. This reduces confusion by delivering only the parts needed for the job.

The AS/RS buffer system also gives management and planning unique oversight over the production process and inventory levels. This data can help decision makers determine more efficient production job planning in near real time, as well as to use the data to forecast production with greater precision.

## Securing completed kits from cannibalization

Sometimes the needs of now seem more important than what's needed later. This thinking leads to temporarily borrowing parts from another job to solve issues with a current job. Many times these parts are not replenished and production errors arise.

Moving kitted jobs away from harried supervisors and desperate hands can help mitigate errors like these from happening or at the very least, MWES' kit tracking can call attention to kits operated on when not called for by production.

These are just a few of the ways an AS/RS buffer system designed for production environments can streamline a kitting operation, but each can have considerable impact on the overall production system's efficiency and quality. With a system like MWES' buffer system being so easy to install and operate, exploring its potential for a manufacturing operation to increase throughput is almost a necessity.

**Contact us today to learn more about how our AS/RS production buffer system can transform your kitting operations.**