



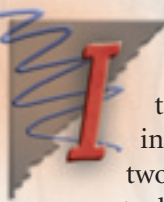
UNEX MANUFACTURING INC.
CASE STUDY



Unex Roller Racks Increase Efficiency, Help Georgia Tractor Manufacturer Harvest Peachy Profits



Kubota Manufacturing of America has reduced parts pick times and greatly improved efficiency in material flow at its Georgia facility by placing versatile Unex Roller Racks within existing pallet rack structures.



It's a daunting task keeping the assembly lines in two enormous buildings stocked with components for Kubota's celebrated rough terrain vehicles, lawn tractors, mowers, backhoes and loaders. An army of lift trucks stacks, unstacks and

exploding along with orders for the company's new RTVs that are only built here but shipped worldwide. He was also excited about a new assembly building under construction. The picture was just peachy.

is rooted in Japanese culture, a concept known as Kaizen. According to Tony Bradley, KMA's Kaizen lead person, it is not simply about making improvements until an 'acceptable' level is achieved, but continually making improvements in an organized fashion over a relatively long time period.

Unex Roller Racks Help Kubota Pick Parts More Efficiently To Roll Out Powerful Lawn Tractors, Zero-Turn Mowers, RTVs, Backhoes and Loaders

Unex distributor and valued KMA supplier ASI Handling System, a division of Air Specialists

moves pallets of parts from warehouse storage racks to 'line side' holding areas at the sprawling Georgia facility of Kubota Manufacturing of America (KMA) just north of Atlanta.

But the strain of the added output before Building 3 comes on line in 2005 was becoming apparent. Parts picks were averaging an eternally long 7 minutes each, compromising efficiency.

Inc., was asked to evaluate the parts storage and retrieval routines and develop recommendations for improvements.

Juichi Shiraishi, KMA's president, is justifiably proud of the company's growth, having received the 2003 Large Manufacturer of the Year award from the State of Georgia. Demand for existing products was

The parts storage and retrieval system needed to be revamped. But there was no need for KMA's plant supervisors to worry. Making continuous improvements in a gradual and methodical manner

Mike Machado, sales manager, and Robbie Jones, sales consultant, studied how parts were warehoused and selectively brought to the assembly lines. They were convinced that a strategy combining both overhead pallet storage and ground level, easy-to-pick parts storage would



“Parts picks were 7 long minutes... Now 19 SECONDS!”

result in quicker parts picks and substantial labor savings. Their plan proposed maximizing the storage density of the existing overhead bulk pallet areas and then placing bays of Unex Roller Racks on ground level, tucked within the pallet rack structure.

Unex Roller Racks bring the product to the operator in a visual manner that makes it easy to identify and speeds up pick time. Also, the operator can easily see when product needs to be refilled to keep Kubota tractors rolling off the assembly lines.

“A lot of lost production time is due to gathering the parts to put into the assembly line,” says Jones. “Roller Racks bring the product to the operator in a visual, positive and ergonomic manner – the operator is able to see when product needs to be refilled. They make the work area

“ You don’t have to climb into the middle of a rack to fix a plastic wheel. ”

neater and induce pride of production in the employees.”

Roller Racks Roll In – Or Out – On Demand

“There’s great flexibility in this arrangement because if the space was needed again for bulk storage the Roller Racks could simply be rolled out and moved to another location,” adds Jones. Also, Machado and Jones pointed out that with KMA employing various types of pallet storage racks throughout the facility the Unex Roller Racks could be quickly and easily reassembled – no hardware or tools needed – to suit different storage patterns.

Although faced with a variety of choices from other suppliers, ASI Handling System’s unique proposal was selected as the best solution for meeting immediate as well as future needs. “I looked at two other companies that had channel liners and plastic rollers,” says Greg Allan, Kubota’s supervisor of procurement materials. “I didn’t think the plastic rollers would last with the weight we would have to put on them.” ASI Handling System’s Jones agrees with that assessment and also mentions the safety benefits of Unex’s Span-Track aluminum rollers: “You don’t have to climb into the middle of a rack to fix a plastic wheel.”

Pipe type structures were also considered, but Allan rejected them outright. “A similar size rack would take 4 hours to cut lengths of pipe and put together and if you didn’t put on extra bracing it would collapse with our heavy totes contain-



No plastic rollers here. Parts totes glide smoothly on rugged Unex Span-Track full-width aluminum roller flow track. Easy to insert or reposition within Roller Rack, different track widths may be intermixed for utmost flexibility.

ing welded components.”

Bill Edgy, Unex’s Southern Regional Manager, reports that KMA placed an initial order for 20 Roller Rack units with Span-Track roller assemblies for Building 2. The units were assembled at KMA by their employees. Tony Bradley, KMA’s Kaizan lead person, put many of the units together himself. “One eight-foot assembly was about 20 minutes,” he says. “One person could easily put Roller Racks together. Granted, two people make it easier,” he adds with an exuberant grin.

Even before the initial installation was completed, however, KMA project engineers from Building 1 were ‘peeking over the fence’ to check out the new arrivals. Impressed with Roller Rack’s versatility, they immediately placed orders for 35 additional units for their facility. A total of 55 units are now in operation between both buildings.

Pick Efficiency Exceeds Expectations

It’s a vastly improved work flow now that Unex Roller Racks have been placed into service. “The ‘pick efficiency’ has increased substantially – now a lightning fast 19 seconds vs. 7 minutes,” says Allan.

The redesigned parts storage and flow is enabling the highly skilled Kubota assembly technicians to easily achieve their production goals while awaiting completion of Building 3. Robert Bone, KMA’s supervisor of warehouse materials, looking out on bay after bay of Roller Racks, appreciates the increased number of parts

that can now be quickly and easily picked and the greatly improved efficiency in material flow. “We can set individual Roller Racks free-standing

“ Roller Racks bring the product to the operator in a visual, positive and ergonomic manner – the operator is able to see when product needs to be refilled. ”

on the floor at the assembly line areas too,” he comments.

A significant benefit of the Roller Rack installation, explains Allan, is that “the same part, previously stored in five different locations throughout the plant, is now available in one spot, enabling the company to implement an orderly

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A total of 55 Unex Roller Rack units located in the two Kubota assembly buildings of their Gainesville, Ga. manufacturing facility helped increase the number of parts that can be easily accessed to maintain production targets for lawn tractors, RTVs, backhoes and loaders.

rotation of parts using the standard FIFO (first in / first out) inventory practice.”

And that army of lift trucks patrolling KMA’s warehouse aisles has now been cut by three vehicles, a significant savings in manpower hours.

According to Unex Manufacturing’s information, Roller Racks are designed for quick, easy assembly and form bay after bay of efficient carton flow where parts and product are always easily reachable. They are constructed of rugged ‘mix & match’ components to withstand the heavy duty, high volume pace of the manufacturing process and are backed by a seven year warranty. System components include slotted uprights, boltless beams and Span-

Track full width aluminum roller flow track that are easy to insert or

“ One person could easily put Roller Racks together. One eight-foot assembly was about 20 minutes. ”

reposition within Roller Rack and provide the precise flow from load point to pick point for even hard to handle totes.

To customize Roller Racks for specific applications, a variety of accessories is available, including: galvanized steel add-on pick trays in depths of 12" and 15"; galvanized

steel workbenches in 12" and 18" depths; label holders for SKU identification and infeed guides and guard rails.

With Roller Racks critical success with KMA’s parts storage and picking requirements in Buildings 1 and 2, discussions are already under way about placing these versatile storage units in Building 3 as well.

For more information about Unex Roller Rack and Span-Track ready framework, including the company’s complete carton flow line, contact: Unex Manufacturing, Inc., 50 Progress Place, Jackson, NJ 08527. Phone: 800-695-7726; Fax: 732-928-2828; E-mail: span@unex.com; Web: www.unex.com.



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