



Application:

Complete tool management solution showcased in Zoller's Industry 4.0 Technology Center

Equipment:

Three 26-foot Shuttle XP VLMs combined with Zoller Tool Management Software

Summary

Shuttle XP VLMs combined with specialty tool management software to create an innovative total solution providing secure, compact and accurate tool handling.

Shuttle VLMs With Provide A Complete Tool Management Solution

Providing total tool management solutions, ZOLLER Inc. specializes in providing efficient and process-reliable cutting tool handling within the manufacturing process. ZOLLER solutions, including tool presetting and measuring, tool inspection, software and automated handling, offer seamless connectivity to provide improved efficiency, higher quality and greater process reliability at each stage of the production process.

The market leader in presetting and measuring technology, ZOLLER offers smart innovative solutions for manufacturing processes. ZOLLER expanded in North America with a new 44,000 square foot facility housing the U.S. corporate offices including sales, service and administration. "Our new Headquarters underscores our commitment to our customer base in North America and will ensure a superior customer service and aftersales experience for our existing and target customers," said Alexander Zoller, President of ZOLLER Inc.

"The VLMs are the most efficient way to keep tooling secure, clean and organized," said Zoller, "and in a very small and compact footprint."

At the center of their new North American Headquarters in Ann Arbor, Michigan is an 8,800 square foot Industry 4.0 Technology Center. "This innovative tech center allows companies of all sizes in diverse industries to experience the power of ZOLLER solutions first hand," said Zoller.



Focusing on Tool Management

Part of the Industry 4.0 Technology Center focuses on tool handling. "Manufacturers often have thousands of tools on hand," said Anthony Westfall, TMS Tool Management Solutions Applications Engineer, "These tools are expensive and can be difficult to inventory, maintain and track – that's where our solutions can help." Combining ZOLLER's specialized tool management software with three 26-foot Shuttle XP Vertical Lift Modules (VLMs) from Kardex Remstar, ZOLLER is able to present a complete tool management solution in their Industry 4.0 Technology Center.

The heart of the tool management solution is the ZOLLER software; allowing manufacturers to track critical information such as location of the tool, useful life cycle, cost center allocation, ordering and regrinding traceability, CAM integration and a complete history log of all transactions.

Storing Tooling & Instruments Efficiently

The physical storage of the tools and instruments is what completes the total ZOLLER solution. "The software is designed to increase the efficiencies and reliability of the tooling; it is important that the storage method used to house the tooling when not in use is equally efficient and reliable," said Zoller.



"When we built the new facility, we organized the Tech Center in such a way that we can simply add more VLMs as our business increases," said Zoller.

Specially designed ZOLLER cabinets are used to hold smaller items, such as small tools and retention knobs while larger diameter and heavier tooling is stored in VLMs. "The VLMs are the most efficient way to keep tooling secure, clean and organized," said Zoller, "and in a very small and compact footprint."

Seamless Integration

ZOLLER software is integrated with the VLMs providing a seamless user experience. Tools are delivered to the operator via an ergonomic pick window at the direction of the ZOLLER software. All tooling data is managed by the ZOLLER software.

When ready, the CAM process is moved to a job sheet. The ZOLLER software then directs the VLMs to deliver the necessary tooling to the operator in order to remove it from stock. When all tooling has been retrieved, the job order is either delivered to the manufacturing cell or held for

pickup. After the manufacturing process is completed, the tooling is returned to stock; checked in via the Zoller software and physically stored safely and securely back into the VLM.

Each check-out/check-in transaction records a user id, date and time stamp to provide real time tool tracking. Additionally, the software can require the input of additional information at check-out/check-in if desired – such as cost center and machine allocation, personnel reference and some customer-defined information.

Light Directed Accuracy

The Shuttle XP VLMs utilize pick to light direction for faster and more accurate picking. Upon tray delivery, the transaction information center (TIC) located beneath the access opening illuminates to direct the operator to the exact location of the tool required. The TIC can be programmed to display the tool identification number and quantity to pick next to the pick location arrow.

This aids the operator in locating the tool faster and picking the correct tool.

Spare Parts Storage

The three Shuttle XP VLMs in the Tech Center aren't just for show – ZOLLER utilizes them for spare parts handling. ZOLLER picks and ships spare parts daily to customers throughout North America.

"Managing our spare parts inventory with shelving would have required double the floor space," said Zoller. "The VLMs are also much more efficient – workers shouldn't have to run around looking for parts in shelving." Using the Shuttle

XP VLMs, orders are sent directly from their ERP system to the VLMs for fulfillment. The VLMs deliver the tray with the correct part to the worker – eliminating the wasted walk and search time common with shelving.

"Year-end inventory is also much easier and convenient," said Zoller. Inventory is counted and reconciled twice a year. Upon request, the VLM presents each tray for a physical count and the inventory is easily reconciled in the ZOLLER software. "When we built the new facility, we organized the Tech Center in such a way that we can simply add more VLMs as our business increases," said Zoller.

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Worldwide Coverage

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