

Benchmark Briefing

# Tool Management Solution





# Specialty tool management solution

**Automated solution provides fast, accurate and compact specialty tool handling**

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 expanded in North America with a new, 44,000 square feet (sq ft) facility. "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.

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

## Case at a glance

**Site**

ZOLLER, Inc., Ann Arbor, Michigan, USA

**Application**

Specialty tool management

**Equipment**

Three Vertical Lift Module Kardex Shuttles with Zoller Tool Management Software

**Increased**  
throughput

**Improved**  
tool tracking

**Saved**  
floor space



# 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.

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



3 Vertical Lift Module Kardex Shuttles each 26' tall



Kardex Power Pick System inventory management software



Pick-to-light technology

## 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 Kardex Shuttles, 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.

# Automation – benefits and processes

## Light directed accuracy

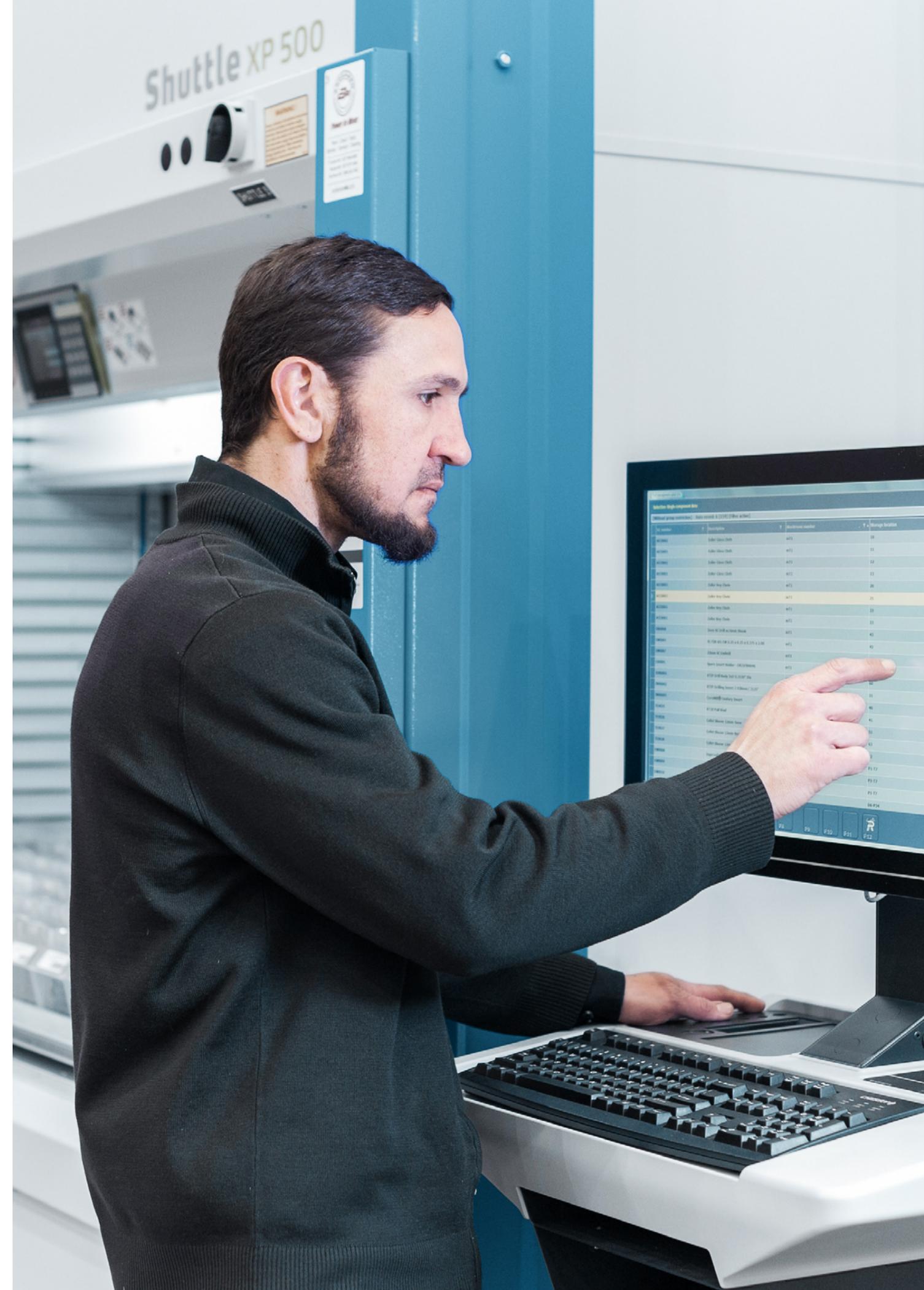
The Kardex Shuttles utilize pick-to-light direction for faster and more accurate picking. Upon tray delivery, the pick-to-light technology located beneath the access opening illuminates to direct the operator to the exact location of the tool required. The pick-to-light display can be programmed to display 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.

## Tool tracking

Further, inventory management software track and logs every transition. As tools are checked out for use and checked-in upon return, the activity is time stamped to provide easy and real time tool tracking. Applying only the time the tool is checked out to the lifecycle of the tool can dramatically lengthen the usable life of the tool.

## Space

Consolidating tools from rack and shelving into automation eliminates the wasted aisle space and unused ceiling height commonly associated with rack and shelving. Using the Kardex Shuttles, tooling is stored in a single, secure and compact location for optimal use of floor space.





## Seamless integration

ZOLLER software is integrated with the Kardex Shuttles 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 Kardex Shuttles to deliver the necessary tooling to the operator 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 Kardex Shuttles.

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.

## Spare parts storage

The three Kardex Shuttles 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 Kardex Shuttles are also much more efficient – workers shouldn't have to run around looking for parts in shelving."

Using the Kardex Shuttles, orders are sent directly from their ERP system to the VLMs for fulfillment. The units 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 Kardex Shuttles as our business increases.»

**Alexander Zoller**, President of ZOLLER