

## From Presetter to CNC

ToolConnect is a process control system that automates the transfer of tool presetter data to (and from) the CNC machine control. ToolConnect reads and processes RFID or barcode tool data, and updates offsets automatically, no operator data entry required. Each customizable system is designed to meet unique tool load process specifications, while providing a common interface for all machine tools on the shop floor.

## TOOL CONNECT RFID SYSTEM

Transfers tool presetter measurement data directly to and from the CNC control via RFID tags embedded in tool holders.



- RFID TAG DATA**
- Tool life
  - Tool length
  - Diameter
  - Nose radius
  - Adapter type
  - Pull stud type
  - Max RPM
  - Heavy tool
  - Tool too large
  - Carousel position
  - Used/new tool
  - Any customer-defined info

- Tools are measured at the presetter where tool data is written to the RFID tag
- The tool is placed in a read station at or inside the machine, and all tool data is read and processed by ToolConnect
- ToolConnect guides the user through required steps and confirms successful completion
- ToolConnect reads and writes data to the CNC control; automatically updating tool offsets and tool life data to (and from) the tag



### System Includes:

- ToolConnect software
- A custom-designed tool pot for the proper tool holder type
- A tool ID controller with read/write head
- A touch screen PC for user prompts and information

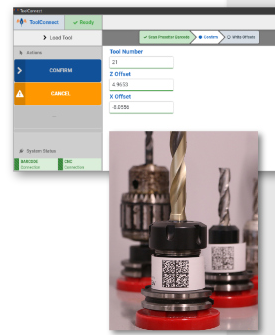
powered by **MICCONNECT**

## TOOL CONNECT 2D BARCODE SCANNING SYSTEM

Transfers tool presetter measurement data directly to the CNC control via 2D printed barcode tags.



- Tools are measured at the presetter where the tool data is printed to a barcode
- 2D barcode scanner scans the barcode at the machine
- ToolConnect processes and displays the scanned data
- ToolConnect guides user through required tool load steps and updates information to the correct fields in the CNC control

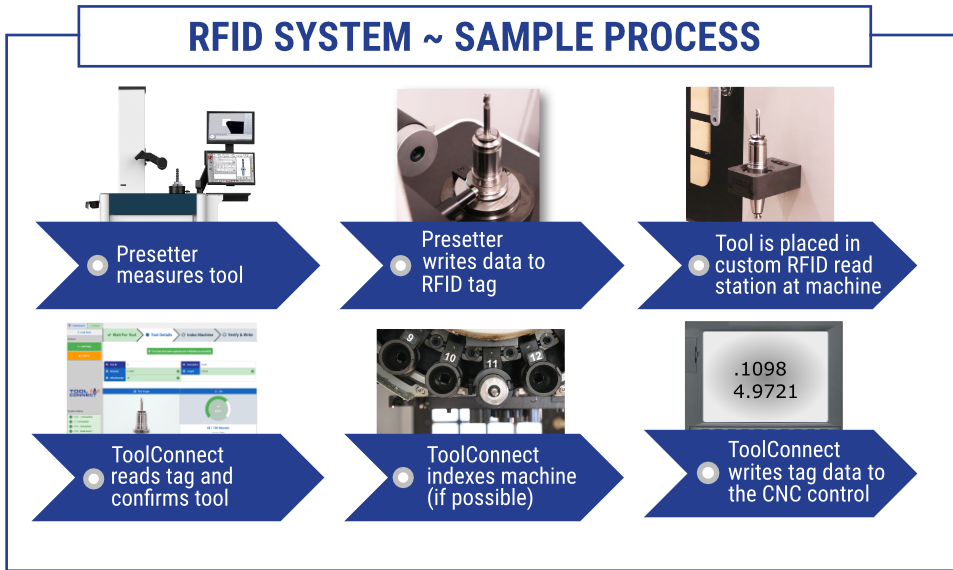


### System Includes:

- ToolConnect software
- A 2D barcode scanner
- A touch screen PC for user prompts and information

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## RFID SYSTEM ~ SAMPLE PROCESS



## ToolConnect Audit Log

▼ Routine Fri January 29 2021 01:23:25 PM

▼ Name Load Tool - RFID / Tool Number 16  
 ☐ Exited from Routine Flow Operator

01:23:25 PM Routine Started  
 User Interface / waitingForTool

01:22:47 PM Screen Displayed  
 User Interface / waitingForTool  
 ● Information  
 ● Operator  
 ☐ Running routine step Wait for Tool (1:4)

01:22:47 PM Routine Step 'Wait for Tool'  
 ● Information  
 ● Operator  
 ☐ Running routine step Wait for Tool (1:4)

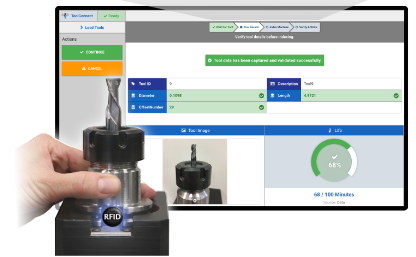
01:22:47 PM Read Tag  
 Program: RFID  
 ● Routine Action  
 ☐ Tag at read station 'Head 1' was processed successfully.

Target	Value	Comment
Assembly	0123456789	
Description	906.162	
Length	5.3200	
Diameter	0.0053	
Tool Number	16	
Offset Number	16	
Life	100	
Used Flag	0	

- Every step, action, and data exchange is logged with date and time stamp
- Data is available locally or via **MTConnect**
- This data is valuable for quality control and process verification

## SYSTEM FEATURES

- Works with nearly any presetter that can write to an RFID tag or print a 2D barcode
- Easily integrates with almost any machine and control type
- Intuitive operator screens display all tool information and guide the user through the process flow, ensuring each step is successfully completed
- The flexible design of the software can easily accommodate changes to the process
- Automatically indexes to the correct tool magazine position (machine/control dependent)



### Standard Control Interface for:

- Okuma P control
- Fanuc (Focas 1/2)
- Heidenhain
- Mazak
- Mitsubishi
- Siemens 840D
- Fagor
- Makino

## BENEFITS

- Automates the process of loading and unloading tools
- Reduces setup time and improves productivity
- Ensures consistent and accurate process flow
- Eliminates operator errors by automatically updating offsets in the control
- Verifies the correct tool is being loaded in machine
- Eliminates the need for a post-processor
- Maximizes chip cutting time by using offline tool setting

## OTHER PRODUCTS FROM CARON ENGINEERING



All CEI products are **MTConnect** compliant

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