

**TRAK** MACHINE  
TOOLS



SOUTHWESTERN INDUSTRIES, INC.

# TRAK VMC

# 2



**COMPACT**

**STRONG**

**PRECISE**

**ACCURATE**

**CAPABLE**

**EASY**

**PORTABLE**

*Featuring the*

**ProtoTRAK RMX CNC**

# A STRONG, PRECISE, COMPACT, VERSATILE PRODUCTION MACHINE

[www.trakmt.com/vmc2](http://www.trakmt.com/vmc2)



- Compact 52" x 30.5" Footprint - Fits Anywhere You Need
- Conversational Programming - Easy Setup of Simple Jobs
- G-Code Compatible - For Complex 3D Programs
- Bridge Construction For Rigidity and Precision
- Surprisingly Large XYZ Workspace - 14" x 12" x 17"

# POWERED BY THE PROTOTRAK RMX CNC



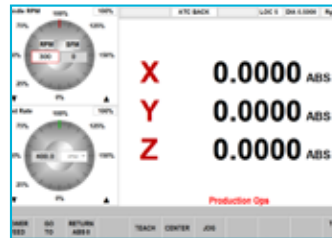
The ProtoTRAK RMX CNC gives you powerful capability not found anywhere else. You'll be amazed at how easy a capable CNC can be.



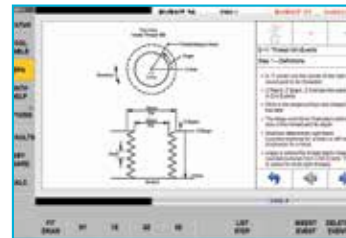
This uncluttered control panel features a keyed switch to help you assure that only qualified machinists can run the machine in Toolroom Ops.



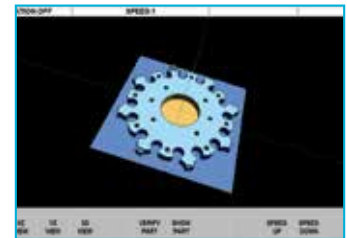
**Touchscreen** for an extraordinary user experience that keeps you working fast



Powerful Features for **manual setup** in Toolroom Ops



**Enhanced ProtoTRAK Assistance** – instructions at your fingertips



Powerful solid model **graphics** for Verify and Parasolid converters



**Defaults** teach the ProtoTRAK RMX your machining style



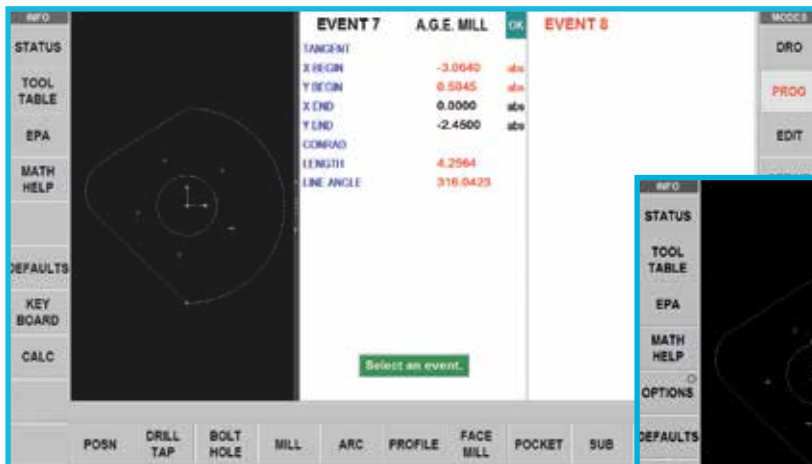
**Auto Geometry Engine**® software to fill missing data for you as you program



Easy, prompted programming **events** with graphics that update while you program

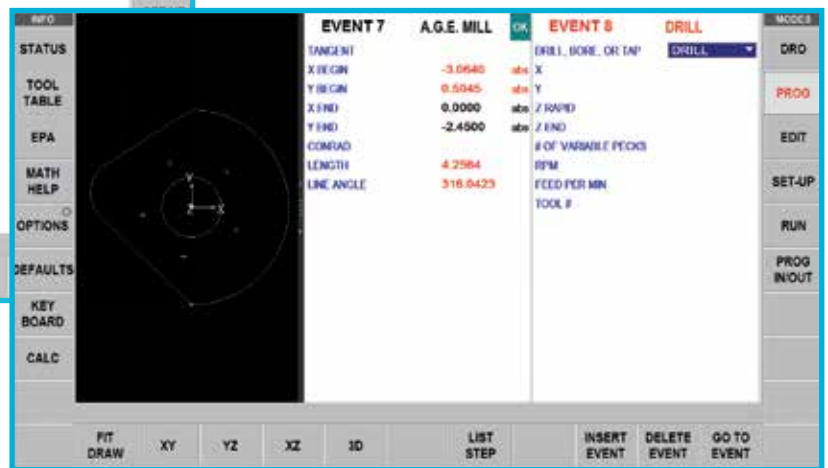
# PROGRAMMING MADE EASY

Programming is a simple process of selecting the event and then describing the geometry from print data.



Program complete prints or just write simple programs for single operations.

Tap the event you want  
...and fill in the prompts



## Defaults

Defaults customize the programming to your style. The prompts will autofill with the choices you make in Defaults, making programming even faster and easier.



## Options

Press Options key while programming the event and you'll have choices for how the geometry is machined.

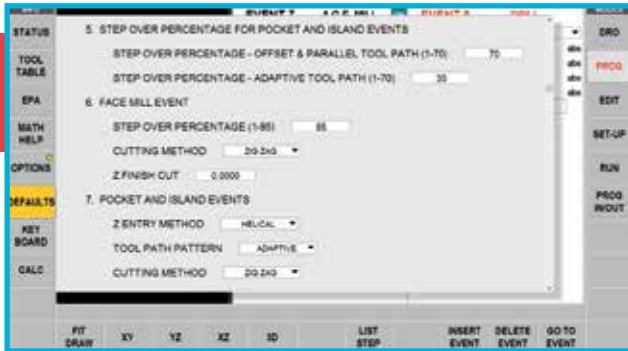


## Canned Cycles

There are over 25 canned cycles that make it easy to program even complex shapes right on the shop floor.



# Adaptive ToolPaths



The Adaptive Tool Path works with the Defaults to:

- Provide state of the art toolpath generation for faster machining
- Keep the load constant on the cutter to extend tool life
- Reduce wear and tear on the machine



The pocket on the left has a standard tool path. The pocket on the right was machined with Adaptive tool path.



You have to see Adaptive to appreciate it. See our video at [www.trakmt.com/VMC](http://www.trakmt.com/VMC)  
Better yet, call for a demo.



# MAKE IT PERSONAL WITH DEFAULTS

## The ProtoTRAK RMX is the only CNC that you can mold to your style

You have a style. The work you do, the material you cut, the tooling you use, they all make up your style. The ProtoTRAK RMX is the world's only CNC that you customize to your style. You do this easily by setting Defaults.

Setting Defaults makes programming even easier by loading in your preferences as you program. Once you select the event, your preferences are already there for you. If you're mentoring someone who is new to the craft, you can set the Defaults to help your student work within the parameters you define.

The screenshot shows the software interface with a sidebar on the left containing menu items: INFO, STATUS, TOOL TABLE, EPA, MATH HELP, **DEFAULTS** (highlighted in yellow), KEY BOARD, and CALC. The main window is titled 'DEFAULTS' and shows a 'USER PROFILE' dropdown set to 'DEFAULT USER'. Below this are four numbered sections for configuring defaults:

- 1. FEED MOVES: FEED PER MIN (dropdown)
- 2. SPINDLE SPEED VALUES: RPM (dropdown)
- 3. PECK TYPE ON DRILL AND BOLT HOLE EVENTS: VARIABLE (dropdown)
- 4. PROFILE, POCKET AND ISLAND EVENTS
  - NUMBER OF PASSES: 3
  - DEPTH PER PASS: 0.2500
  - NUMBER OF PASSES/DEPTH PER PASS: DEPTH PER PASS (dropdown)
  - NUMBER OF REST PASSES: 2
  - DEPTH PER REST PASS: 0.1250
  - NUMBER OF REST PASSES/DEPTH PER REST PASS: DEPTH REST PASS (dropdown)

At the bottom of the main window is a 'Service Code #' field and a row of buttons labeled A, B, C, D, E. A red callout box on the right contains the text: 'We set the Number of Passes as a default'. A red line connects this text to the 'NUMBER OF PASSES' input field. Another red callout box on the right contains a table of parameters for 'EVENT 2' and 'CIRC PCKT':

EVENT 2	CIRC PCKT	
X CENTER	0.0000	abs
Y CENTER	0.0000	abs
Z RAPID	0.0100	abs
Z END	-0.5000	abs
RADIUS	0.7500	
DIRECTION	CCW	(dropdown)
# PASSES	3	(input field)
FIN CUT		
RPM		
FIN RPM		
Z FEED PER MIN		
XYZ FEED PER MIN		
FIN FEED PER MIN		
TOOL #		
FIN TOOL #		

Below the table is a 'RETURN' button. A red line connects the '# PASSES' value '3' in the table to the 'NUMBER OF PASSES' input field in the main window.

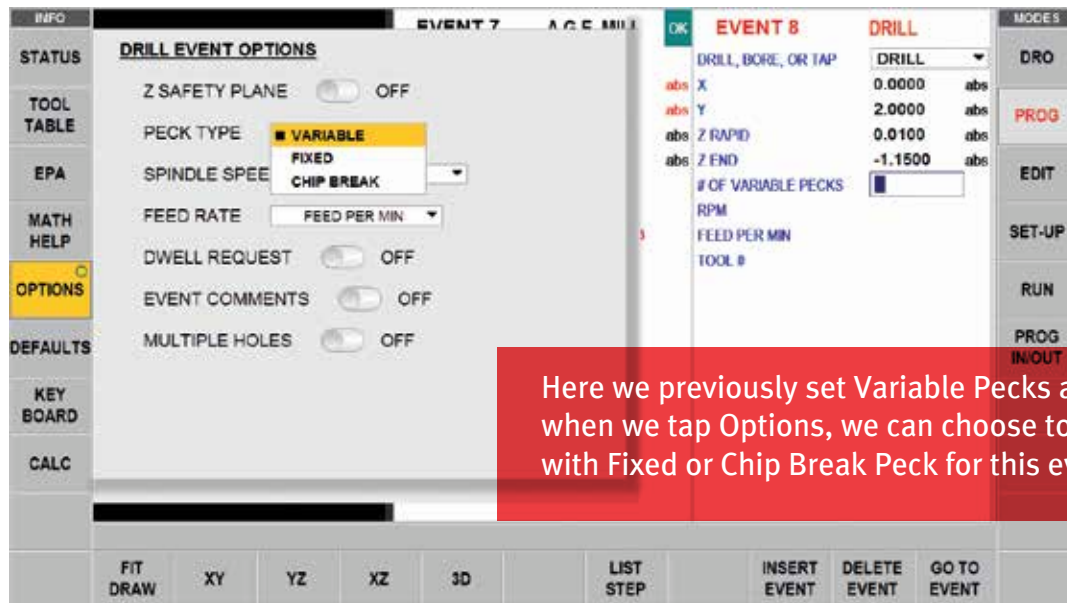
We set the Number of Passes as a default

Now when we program, those values are already there.

# DEFAULTS make

## Change Defaults whenever it suits you

You're not stuck with the settings you make. You can easily change the preferences by entering another value at the prompt or tapping Options. If you wish to set a new Default, simply select the Defaults Info Key and enter the preference.



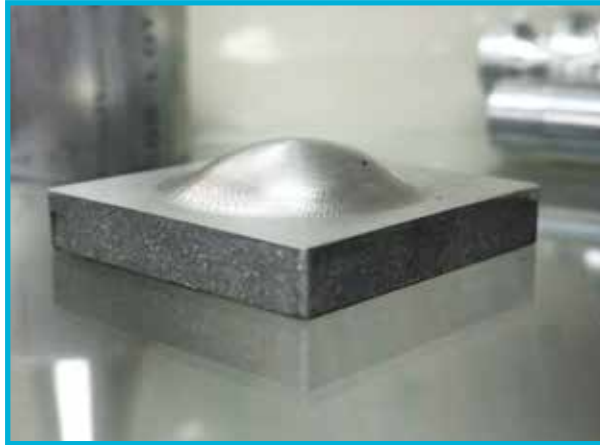
You don't have to set every Default; we've set the most common ones here at the factory. But if you choose, you can use Defaults to:

- Set spindle speed programming at RPM or Surface Speed.
- Set Feedrate programming for Feedrate per Minute or per Tooth.
- Set step-over percentages for Pockets and Face Mill Events.
- Set Z entry as Plunge, Zig-Zag or Helical.
- Choose between 2 or 3 axis CNC at startup...
- ...and more!

You will love how easy it is to work with Defaults and how much time they will save you in programming, but there is only so much we can show you on a piece of paper. See our website at [www.trakmt.com/RMX](http://www.trakmt.com/RMX) or call for a Demo in your shop or our showroom. Or just give your TRAK Machine Tools Sales Rep a few minutes the next time he comes by. Chances are he has a Demo Box with him!

# programming even easier.

# FULL FEATURED 3-AXIS CNC MILL



3D surfacing



8 station tool changer

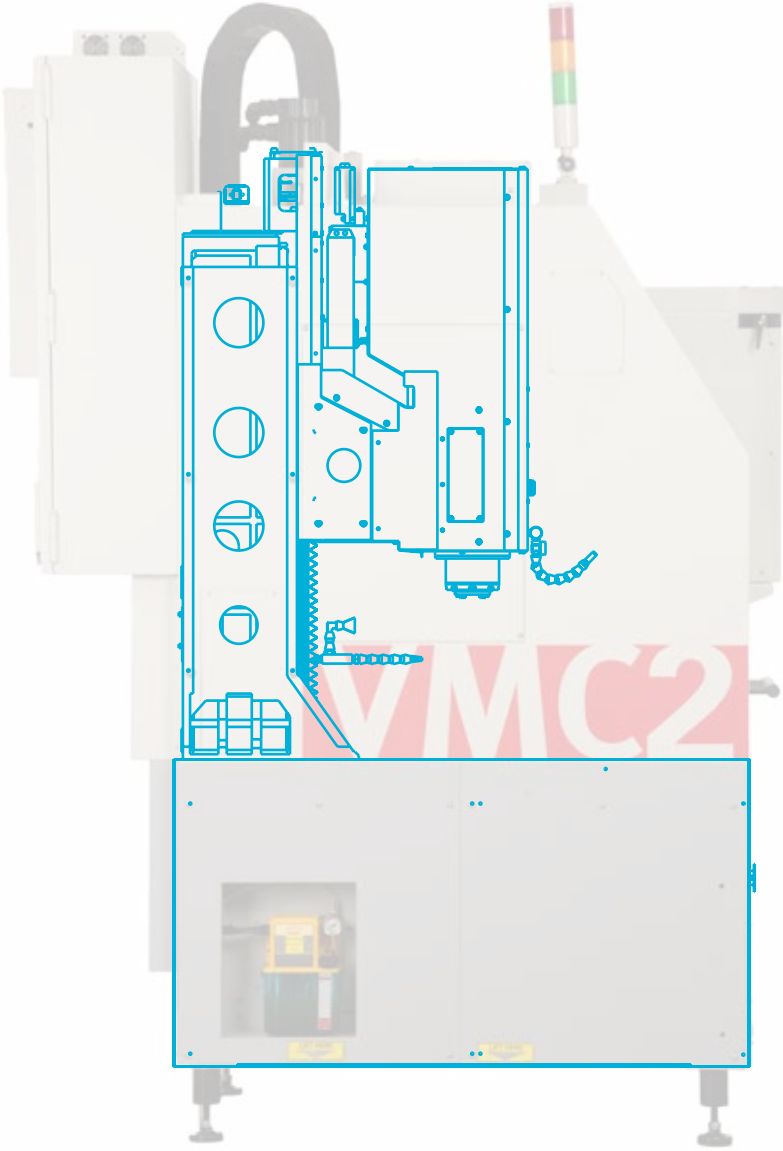
## Ready for IIoT



The MTConnect option allows you to network machines, through either the ProtoTRAK's ethernet connection or a USB wifi adapter, enabling you users to collect machine data in your shop. MTConnect provides a standard structure for data across all your machines to eliminate confusion between proprietary formats. You can monitor machine status, receive notifications and analyze data throughout your machines' history.



# Rigid & Precise



Compact bridge construction, with a short (horizontal) head projection and direct drive spindle.

X and Y-axis linear rails are precision grade and mounted with a heavy preload.

X, Y and Z-axis ball screws are pre-loaded, ground and precision grade.

Tool holders with patented BT30 pull stud to prevent tool holder bulging near the top.

High spindle tool retention force.



Ball locks to secure mounting plates built into the table



This minimal head projection significantly reduces the thermal expansion effects on the machine's Y-axis accuracy, especially when comparing parts that are run on a "cold" machine in the morning vs. "warm" machine later that day.

# OPTIONS

## CUSTOMIZE TO FIT YOUR NEEDS



### VMC2 Vise:

- Modified for the TRAK VMC2



### Fixture Plate:

- Precision plate with primary liners, 18 x 15"



### Fixture Plate for Vise:

- Includes liners, fence, and vise stop assembly



### Vise Stop:

- Includes mag base, 1", 2" and 3" extensions



### Tool Holders:

- BT30, eight pieces of assorted sizes



### Pull Studs:

- 30 taper



### Ball Lock Liners (8):

- For fixture plates. High and lower precision for use with primary and secondary locating holes on the VMC2 table



### Ball Lock Clamps:

- Available in sets of four



### Mobile Tool Cart:

- Convenient and easy to move

- Pallet Jack
- Tool Measurement Cart
- Memory Option
- Auxiliary Output
- Remote Stop-Go

### Additional Options

- DXF converter
- Parasolid converter
- CAM Out converter
- Offline programming software
- Voltage change 220v to 440v

- Single phase option (reduces HP by 40%)
- Indexer ready kit
- External Delkin USB drive

# SPECIFICATIONS

## Overall Machine Dimensions:

- 30.5 x 52 x 101"
- 92" min height
- 2825 lbs / 3175 lbs shipped

## Table Dimensions:

- 18 x 15"
- 4 tee slots at 63mm
- 500 lb max load
- Ball Locks® w/ 2250 lbs of hold down force @ 35 in/lb of torque

## Travel:

- 14 x 18.6 x 17"
- 20.25" max spindle height
- 2.75" min spindle height
- 14" spindle center to column
- 600 in/min max rapid speed

## Spindle:

- BT30 tool holder
- 2.2" spindle nose diameter
- 10,000 max RPM
- 3hp motor

## Automatic Tool Changer:

- 8 tool capacity
- 2" max tool diameter
- BT30 retention knob

## Air Requirements:

- 90 psi
- 2.5 CFM at 90 psi
- 10 SCFM

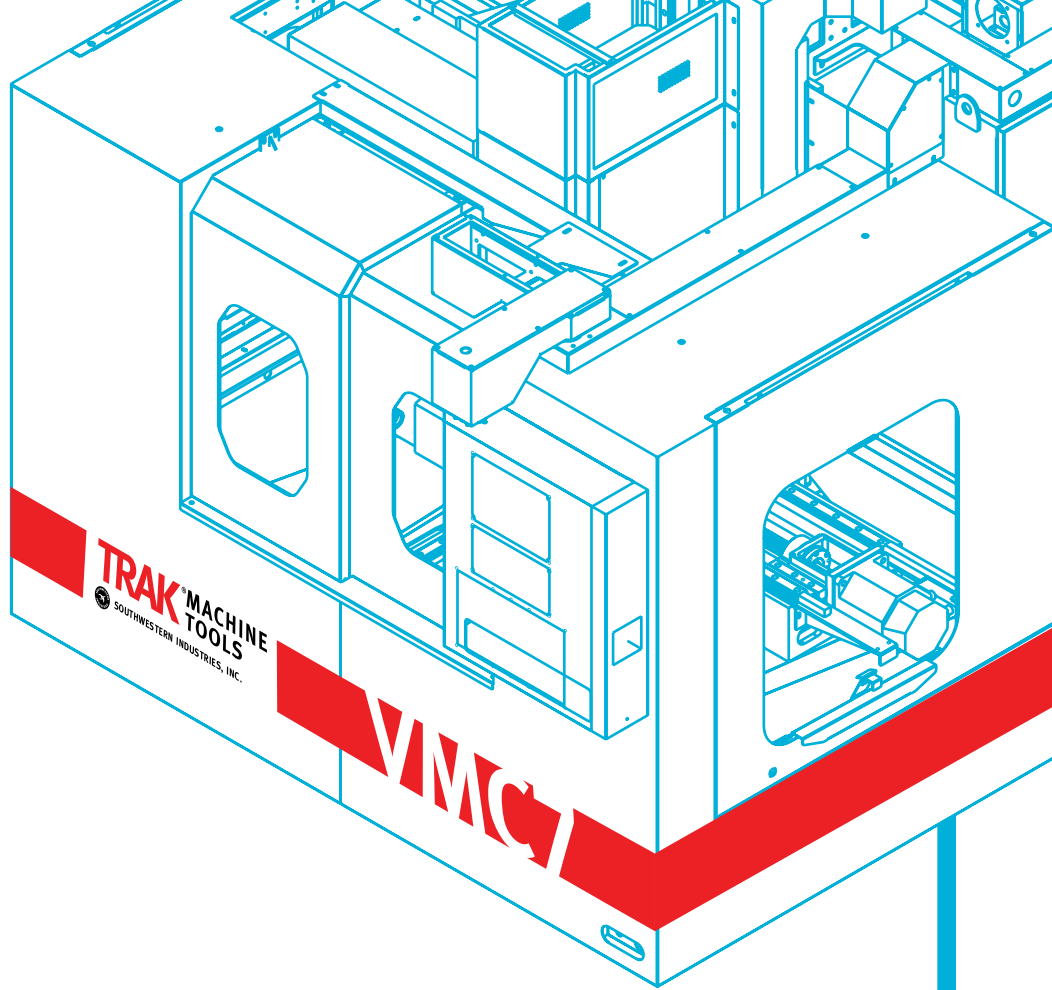


## ProtoTRAK System Hardware:

- ProtoTRAK RMX CNC
- Three-axis CNC and DRO
- 15.6" LCD screen
- 4 USB 2.0 ports
- Built in LED status lights
- Uncluttered front panel
- Beacon light
- Spindle speed override
- Coolant pump
- Ethernet port
- 15 gallon coolant tank
- Air blast

## Software Features:

- Clear, uncluttered interface
- Prompted data inputs
- Plain language - no codes
- Soft keys change with context
- Windows® operating system
- Inch/mm selectable
- Rigid tapping
- Reference to ball lock locations
- Absolute home location
- Canned cycles: pockets, profiles, bolt hole patterns, etc.
- Indexer compatible
- Toolroom vs Production ops



Get to know the new TRAK VMC2 featuring the ProtoTRAK RMX today!

Visit [www.trakmt.com/VMC2](http://www.trakmt.com/VMC2)

Call for a demo in your shop at 800-421-6875

Visit one of our showrooms nationwide [www.trakmt.com/locations](http://www.trakmt.com/locations)

Sign up for an Open House or Trade Show event near you: [www.trakmt.com/events](http://www.trakmt.com/events)



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