

Southwestern Industries, Inc.

TRAK DPMV7 Bed Mill with the ProtoTRAK VM CNC

Machine specifications

- Table size – 76" x 14"
- T-slots (number x width x pitch) – 3 x 63" x 2.48"
- Travel (X, Y, Z axis) – 60" x 23" x 20.5"
- Quill diameter – 5.06"
- Spindle taper – NMTB 40
- Spindle speed range RPM – 200-5000
- Spindle center to column face – 23"
- Spindle motor power – 7.5 HP
- Power requirement – 3 phase, 220V, 50 HZ/60 HZ; 52 FLA
- Maximum weight of workpiece – 2200 lbs.
- Height of table from bottom of bed – 38.25"
- Maximum spindle nose to table – 21.5"
- Minimum height – 91.75"
- Maximum height – 92.5"
- Width of machine including table – 110.5"
- Length with electric box door closed – 93.75"
- Overall width including full table travel – 171.65"
- Overall length with electrical door open – 119.5"
- Footprint – 37" x 62.2"
- Way surface – dovetail X axis; square ways Y and Z axis
- Weight (approximate) net – 7650 lbs.
- Weight (approximate) shipping – 7975 lbs.
- Maximum work capacities – Drilling (mild steel) max. dia. 1.00"; tapping, 5/8"; milling capacities, 7 inch³/min
- Way surfaces hardened and ground
- Turcite coating on all slide ways
- Automatic lubrication pump
- Auxiliary function hardware
- Limit switches

ProtoTRAK VM CNC - the control on the TRAK V Series Bed Mills Hardware Specifications

- Two or three-axis CNC, three-axis DRO
- Pentium processor with built-in video and Ethernet cards
- 64 MB or RAM
- Hard drive
- TEAC floppy disk drive
- Ports and connectors: P/S 2 keyboard and mouse, RS232, RJ45
- 10.4" color active-matrix display
- Override of programmed feedrate and rapid with graphical indicator
- Polycarbonate sealed membrane with LED status lights
- Gasket sealed enclosures
- Brushless A.C. servomotors rated at 704 in-oz continuous torque
- Integrated motor encoders with .000025" underlying resolution.
- 250 IPM rapid traverse

- Precision ground ballscrews in the table, saddle, and column
- Programmable spindle speed
- Override of programmed spindle speed with graphical indicator
- Electronic handwheels
- Yaskawa AC spindle drive
- Digital servo amplifiers custom designed for mill operation
- Auxiliary functions: spray mist, coolant, spindle off and an input to a programmable rotary table or indexer
- Tapping with a floating tapping head

Software Specifications

- Windows® operating system with access to Windows® desktop
- Versatile: select between manual, two or three-axis CNC
- Auto Geometry Engine
- Two or three-axis circular interpolation
- Linear interpolation
- Six modes of operation
- Color graphics with adjustable views
- Icon-prompted tool set-up
- Automatic diameter cutter compensation
- Tool length offsets with modifiers
- Advanced diagnostic routines
- Jog and Power feed in DRO mode
- Selectable fine/course manual traverse
- Go To – traverse stops at dimension selected
- Automatic return to absolute zero
- Incremental and Absolute position readout
- Teach-in of manual moves
- Inch/mm selectable
- Scaling of print data
- Alpha-numeric program names
- Event comments
- Selectable tool path or part geometry programming
- Convenient canned cycles for all geometry
- Circular, rectangular or irregular pockets, islands and profiles
- Helix and thread milling routines
- Repeat of programmed events
- LOOK – program graphics with a single button push
- List step – graphics with programmed events displayed
- Conrad – one input for automatic corner radius
- Incremental and Absolute programming
- Subroutine and copy of programmed events
- Mirror with selectable cutting order
- Rotate
- Program diagnostics
- CAD/CAM interface
- Math helps with prompted graphical interface
- Tool stepover adjustable for pocket routines
- Selectable ramp or plunge cutter entry
- Spreadsheet editing™
- Global data change
- Clipboard to copy events between programs
- Trial run

- TRAKing® – manual control of CNC program run
- Real time run graphics with tool icon
- Access to networked drives
- Automatic file back-up routine

Service

- The SWI Customer Service Group provides after-sale support over the telephone via a toll-free service number - (800) 367-3165.
- Machine design makes self-service easy for when the customer is able to resolve the problem.
- Express Exchange program in which nearly all electronic and mechanical sub-assemblies are in stock. In response to a problem, any parts you need may be shipped to arrive the next day.

Available Options/Accessories

- Glass scales for table and saddle
- Power drawbar
- Remote stop/go switch
- Coolant pump
- Offline programming software
- Converters
- Halogen work lamp
- Chip pan / Splash shield

DXF File Converter Option

Import and convert CAD data into ProtoTRAK programs

DXF or DWG files

Chaining

Automatic Gap Closing

Layer control

Easy, prompted process you can do right at the machine

CAM Out Converter Option

Save ProtoTRAK files as CAM files for running on different controls