Southwestern Industries, Inc.

TRAK™ 2OP M10 Milling Machine with the ProtoTRAK TMX Control

Machine Specifications

Overall Machine Dimensions

Width of machine	30.5″
Depth of machine	52″
Height of mill with head all the way up	101″
Minimum height to fit mill through doorway (Z cable carrier collapsed)	90″

Machine Specifications

Table Dimensions

Table size	18″ x 15″
Number of tee slots and pitch	4 @ 63 mm
Tee slot width	0.630″ or 16 mm
Table maximum load	500 lbs.
Ball Lock ® hold down force	2250 lbs @ 35 in/lbs of torque
Machine Weight	~2400 lbs
Machine Shipping Weight	~2750 lbs

Travel

X-axis	14″
Y-axis	18″ (12″ of machining travel)
Z-axis	17″
Maximum distance from spindle nose table surface	20.25″
Minimum distance from spindle nose table surface	2.75″
Maximum swing clearance from spindle center to column	14″
Maximum Rapid speed X, Y & Z-axis, inches per minute	500

Spindle

Tool holder type	BT30
Spindle nose diameter	2.2″ or 56 mm
Maximum RPM	5000
Horsepower	3 HP

Automatic Tool Changer

Tool Capacity	8
Maximum tool diameter	2″
Retention knob	BT30

Air Requirements

Pressure	90 psi
Quality	Air dried/filtered water separator upstream of the machine
CFM	2.5 at 90 psi
SCFM	18

Hardware

- Auto Lube Pump
- Fluorescent Worklamp
- Coolant Pump
- Limit Switches
- Vise* (O)
- Electronic Handwheel
- 4 Ball Lock Receivers in table
- Pallet Jack
- Main Electrical Power Cord with Plug
- Removable chip pan
- BT30 1/2" End Mill holder- qty of 2 (O)
- BT30 3/8" End Mill holder – qty of 2 (O)
- ER-16 Collet holder 3/8" max. capacity – qty of 3 (O)
- BT30 Shell Mill holder 2.0" to 2.5" – qty of 1 (O)

* Reference the TRAK 2^{OP} programming manual for further details.

ProtoTRAK TMX System Specifications

(O) indicates optional feature

ProtoTRAK System Hardware

- ProtoTRAK TMX CNC
- Three-axis CNC and DRO
- 5" active-matrix color LCD screen
- 2 USB ports
- LED status lights built into display
- USB Thumb drive flash memory 512 MB or more (O)
- Uncluttered front panel with few hard keys
- Beacon light
- Override of program spindle speed

Software Features – General Operation

- Clear, uncluttered screen display
- Prompted data inputs
- English language – no codes
- Soft keys - change within context
- Windows® operating system
- Three-axis CNC
- Inch/mm selectable

- Convenient modes of operation
- Reference to ball lock locations on table
- Absolute home location

DRO Mode features

- Incremental and absolute dimensions
- Spindle speed setting with manual override
- Fine/Course handwheel resolution
- Return to Ball Lock location
- Return to Home
- Return to Absolute zero

Program/Edit Mode features

- Geometry-based programming
- Incremental and absolute dimensions
- Automatic diameter cutter comp
- Look – graphics with a single button push
- Numeric program names
- Program data editing
- Conrad – automatic corner radius
- Programmable spindle speeds
- Tool stepover adjustable for pocket routines
- Pocket bottom finish pass
- Selectable ramp or plunge cutter entry
- Subroutine repeat of programmed events
- Nesting
- Rotate about Z axis
- Tool stepover adjustable for face mill

Canned cycles

- Position
- Drill
- Bolt Hole
- Mill
- Arc
- Circle pocket
- Rectangular pocket
- Circular profile
- Rectangular profile
- Tapping
- Face Mill

Set Up Mode Features

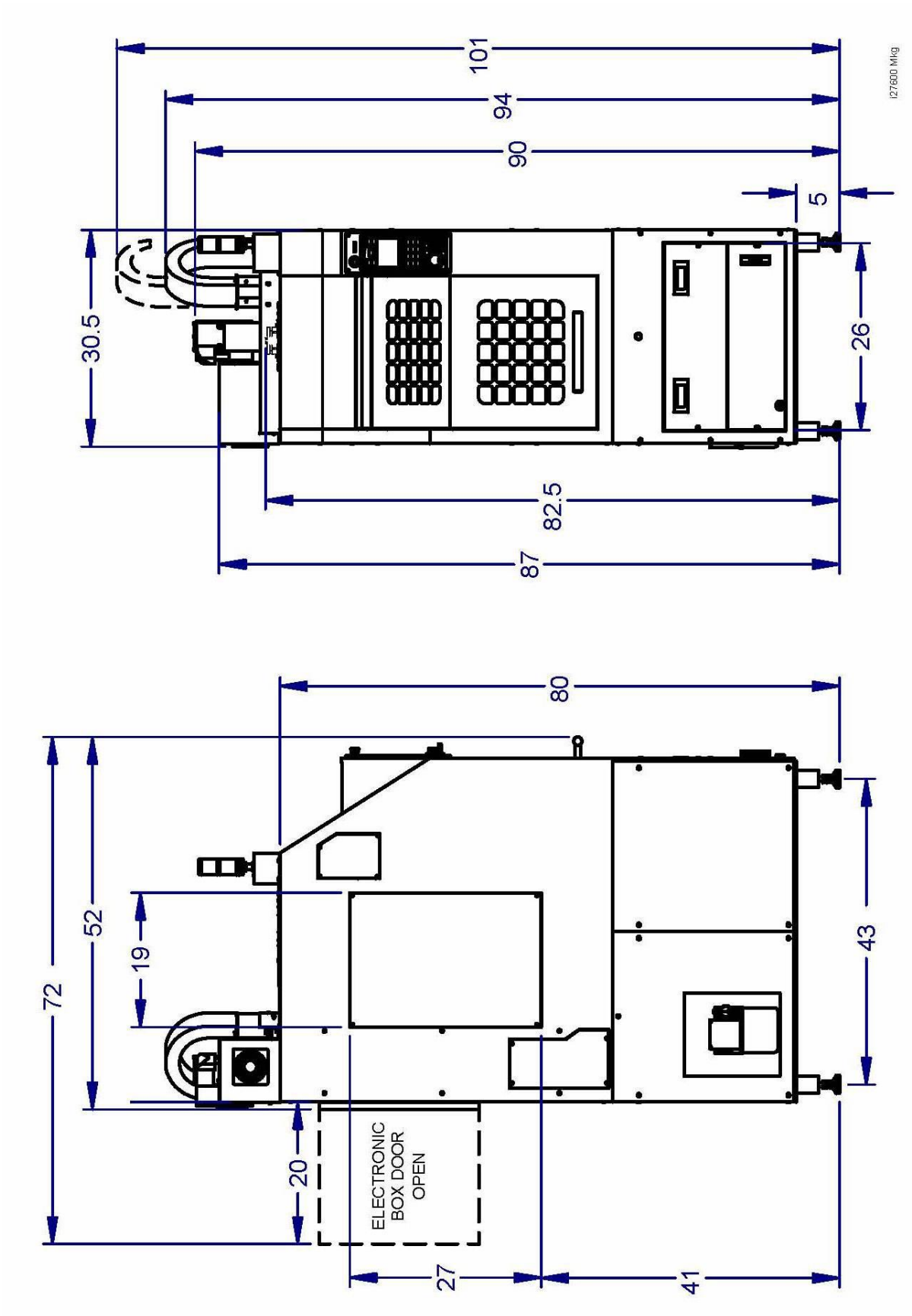
- Advanced tool library
- Tool names
- Tool length offsets with modifiers
- Tool path graphics
- Multiple fixture offsets

Run Mode Features

- TRAKing
- 3D G code file run
- Spindle override
- Feed override

Program In/Out Mode Features

- Preview graphics for unopened files
- Open file - PT4 or GCD
- Erase Current file
- Delete file
- Save file


i27600 Mkg
101
94
90
5
30.5
26
82.5
87
80
72
52
19
43
20
ELECTRONIC
BOX DOOR
OPEN
27
41