

Southwestern Industries, Inc.

TRAK TRL 3075RX Lathe Specifications with the ProtoTRAK RLX Control



Machine Specifications

- Height of Centers – 15"
- Distance between centers – 74.8"
- Swing over bed – 30"
- Swing over saddle wings – 28"
- Swing over cross slide – 19"
- Maximum cutting length – 72"
- Cross slide travel – 16.1"
- Tool section max – 1.5"
- Coolant Reservoir – 47 gallons (178 liters)
- Coolant pump motor – ¾ HP (560 W)
- Bed Width – 18"
- Bed Height – 15.75"
- Spindle Nose – A2-11
- Spindle through hole – 6.69" (170 mm)
- Spindle Taper – MT8
- Taper in reduction sleeve – MT5
- Spindle diameter front bearing (ID) – 8.66" (220 mm)
- Number of bearings – 2
- Number of Spindle Speed Ranges – 2
- Spindle Speed Range (RPM) – L: 30-300, H: 100-1000
- Spindle HP – 30
- Voltage – 480
- Amps/full load – 71.6
- Frequency – 60 Hz
- Dimensions net L x W x H – 170" x 82" x 77"
- Dimensions ship L x W x H – 225" x 89" x 88"
- Weight net – 15,430 lbs.

- Weight ship – 16,530 lbs.
- Tail stock quill travel – 8" (250 mm)
- Quill diameter – 4.875"
- Quill taper hole – MT6
- Dynamic spindle motor brake
- Way surface hardness – 480 - 560 HB
- Quiet operation
- Single Door Attached and moves with Saddle
- Meehanite cast monolithic base
- Heavy ribbed base construction
- Bedways hardened and ground
- Sliding surfaces Turcite coated
- Dovetails on cross slide, V-ways on saddle
- Adjustable saddle gibs
- Maximum Rapid – 400 ipm on Z-axis, 200 ipm on X-axis

ProtoTRAK RLX System Specifications

Pendant Control Hardware

- Two-axis CNC, two-axis DRO
- Electronic Handwheels for manual operation
- 15.6" LCD with Touchscreen
- Intel® 2.0 GHz processor
- 4 GB Ram
- At least 32GB of mSATA SSD
- 5 USB connectors
- 2 Ethernet Ports (1 for user and 1 for control system)
- Override of program feedrate
- Override of spindle speed
- LED status lights built into run panel
- E-stop
- Spindle Control (FWD, REV, OFF)
- Feed STOP and GO
- Fine vs Course EHW resolution control
- Accessory button to control coolant and AUTO mode in RUN mode
- Power Reset Button
- Jogstick for convenient jog

Computer Module Control Hardware

- 2 axis motor control – X and Z axis

Software Features – General Operation

- Clear, uncluttered screen display
- Prompted data inputs
- English language – no codes
- Soft keys – change within context
- Windows® operating system
- Selectable two or three-axis CNC
- Color graphics with adjustable views
- Gestures for pan, zoom, rotate
- Inch/mm selectable
- Convenient modes of operation
- Networking

Info Softkeys

- Status
- Tool Table
- EPA
- Math Help
- Warnings
- Defaults
- Keyboard
- Calculator

DRO Mode Features for Manual Machining

- Incremental and absolute dimensions
- Powerfeed X or Z
- GO TO
- Do One – Tapers for any angle
- Do One – Radius
- Do One – Fillet
- Thread Repair (O)
- MAX RPM – set maximum RPM for spindle to run
- Servo motion to return to home
- Tool offsets from library
- Spindle speed setting with override

Program Mode Features

- Geometry-based programming
- Incremental and absolute dimensions
- Automatic tool nose radius cutter compensation
- Circular interpolation
- Linear interpolation
- Look – graphics at all times
- List step – graphics with programmed events displayed
- Alphanumeric program names
- Canned Cycles
- Program data editing
- Options within events
- Math helps with graphical interface
- Subroutine repeat of programmed events
- Nesting
- Programmable spindle speeds

Canned Cycles

- Position
- Drill
- Bore
- Turn
- Arc
- Cycle
- Thread
- Groove
- Tap (O)
- Cut Off

Edit Mode Features

- Delete events
- Search Edit (O)
- Erase program
- G Code Editor (O)
- Clip Board (O)

Set Up Mode Features

- Program Diagnostics
- Software travel limits
- Tool path graphics with adjustable views
- Verify Software
- Service Codes
- CNC Turret Homing
- Advanced Diagnostics routines

Run Mode Features

- CAM file program run
- G code file run with tool comp
- Real time run graphics with tool icon

Program In/Out Mode Features

- Simple program storage to USB device or Network
- CAM program converter
- Converter for prior-generation ProtoTRAK programs
- Open and Save Temp Feature
- Cut, Copy, Delete, Paste of program(s)
- Creating folders
- Program Look preview of files

Advanced Features Option – Lathes

- Gang tool operation
- Custom thread
- Tap
- Event comments
- Thread repair
- Verify – Make Part feature
- Clipboard
- G Code Edit
- Search Edit