

T-5 Series

CNC TURNING CENTER

The Ultimate in Value and High Performance

MORE POWERFUL

- Powerful main spindle - alpha iIP 30/6000 spindle motor 7.5KW (10HP)
- Rigid 45° slanted cast iron base for extra stability and rigidity

LOW COST

- 6 station Gang tooling - standard (8 station Turret - optional)
- Fanuc Oi Mate - standard (Fanuc OiTC - optional)

INCREASED CAPACITY

- 6 inch chuck standard
- 1.6 inch bar capacity standard

FASTER / MORE PRODUCTIVE

- Fast rapid rates X & Z -axis 24 m/minute
- Tool to tool turret indexing time 0.4 sec, 180° indexing 1.0 sec

ERGONOMIC CONSIDERATIONS

- Easy to use membrane touch-pad control station
- Easy moving operator door
- No chip or coolant leaks



T-5 Series



MACHINE ENCLOSURE

T-series machine are fully enclosed with splash guards and way covers.

- CE approved guarding is also available as an option.

T-5 Series CNC TURNING CENTER

Rigid Construction

Superior Construction

- All major components of T-5 series turning centers are cast iron which has 10 times the dampening capacity of steel resulting in superior cutting performance.
- Castings are well ribbed based on Finite Element Analysis (FEA) for the size and location to ensure high torsional stiffness and minimum vibration
- Linear guideways on X-Z for higher rapid rates (trucks are interchangeable for easy maintenance)
- 45° slant bed combines superior machining accuracy with easy access to the workpiece.

Directly Coupled Servo Motors

The T-5-Series servo motors are connected directly to the ball screws with rigid shaft couplings. These couplings ensure that even under severe loading from sharp corner machining, precise interpolation is achieved. This design is superior to both belt driven and flexible shaft coupling designs.

- T-5 series motors on Oi machines have 1,000,000 pulse encoders for high accuracy positioning of linear axes

Headstock

Heavy duty thermally symmetrical headstock design has heat dissipating fins to minimize thermal distortion during long machining cycles. All critical components are machined in a temperature controlled environment and assembled in a clean-room.

- Cartridge style spindle provides quick and easy replacement.



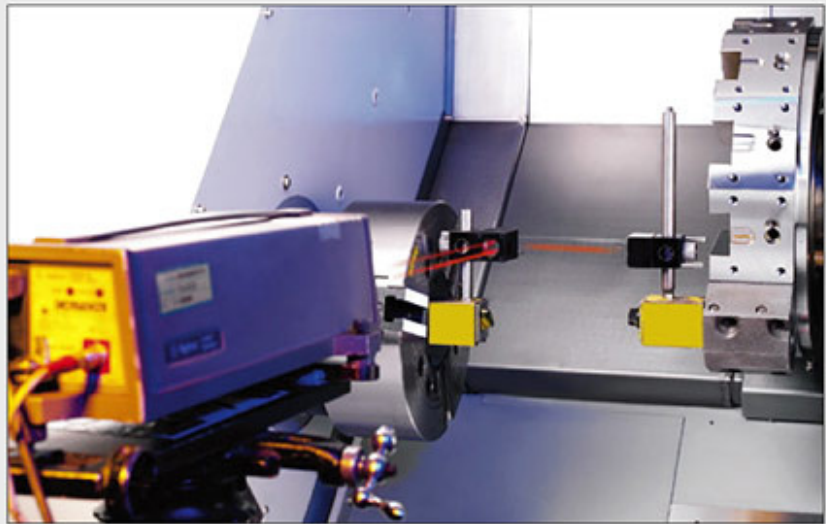
Way Cover Wash

Leadwell's way cover wash option keeps chip from accumulating on the sliding covers. This helps to ensure long term reliability.

T-5 Series



High Quality Assurance



Laser Calibration

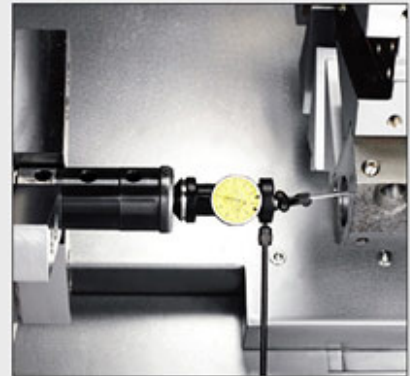
Lasers are used to measure the positioning accuracy of every machine over the full travel of each axis. Leadwell uses these measurements to compensate any axis error so that each machine meets the high accuracy requirements.

- Each machine is shipped with a positioning accuracy chart.



Machine Geometric Checking

Precision indicators are used to verify that spindle run-out and headstock to tailstock alignment meet all specifications.



48 hr Non-Stop Reliability Test

Each machine is cycled for 48 hrs to help ensure the highest reliability

T-5 Series CNC TURNING CENTER

Cartridge Type Spindle

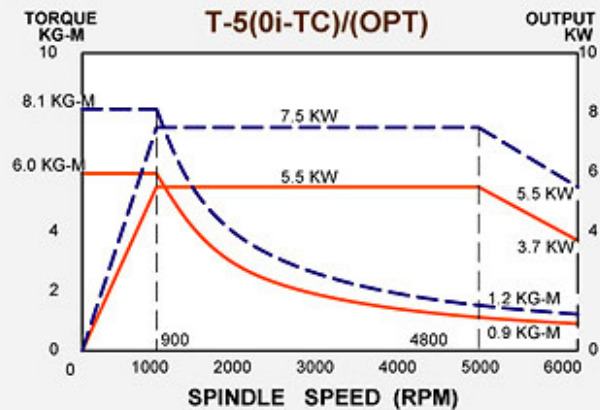
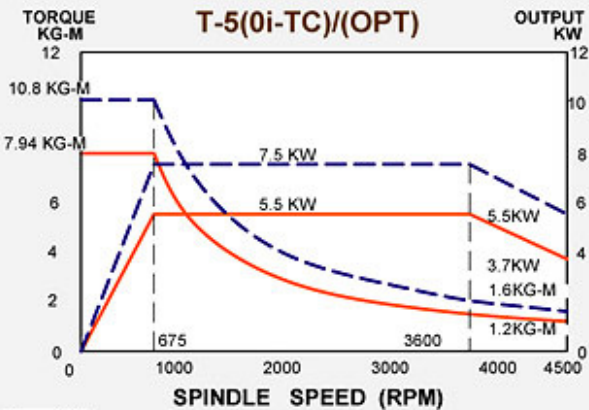
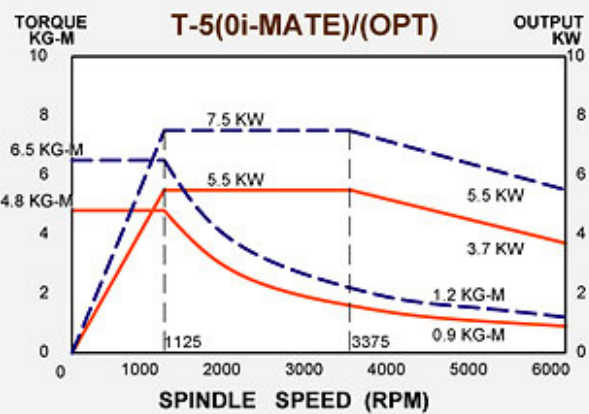
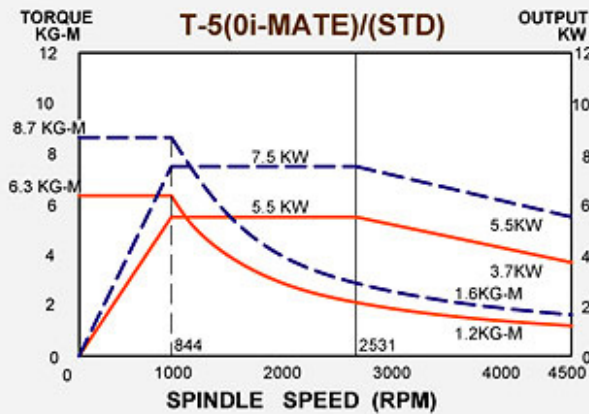
The heavy-duty spindle utilizes FAG or NSK ABEC-7 bearings to support heavy cutting.

- Heavy duty A2-5 spindle nose
 - Wide bearing spacing for high rigidity
 - Special heat treatment for critical parts
 - Highly accurate draw tube mechanism
 - Precision Labyrinth seal
 - Large diameter quill for high rigidity
 - Optimum spacing of front bearings to spindle nose for highest rigidity
- All of which produces better part finish in less time.



Spindle Speed / Output Diagram

--- 15 min
— Continuous



T-5 Series

High Productivity Options



Bar Feeder Option

This option automatically loads bar stock to the T-5 machine. It is controlled by an IO interface and has a convenient LCD display. Diameter changes are made in less than one minute.

- Feeds round, hexagonal and square stock
- This option can be easily added to any T-5 series machine.

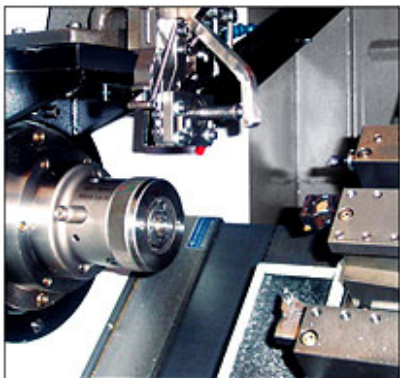


Chip Conveyor Option

Chip conveyor Option

This general purpose option can be added to any T-5 turning center. It is designed to remove steel, cast iron aluminum and bronze chips - thus eliminating operator intervention for periodical machine cleaning.

- Includes patented reversal feature to clear chip jams.



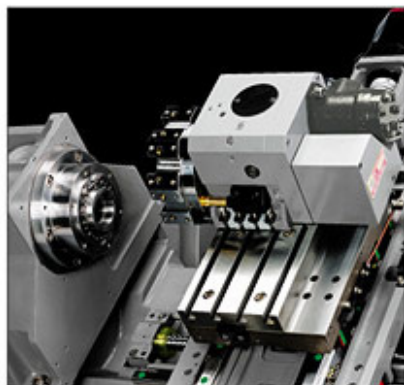
Parts Catcher Option

The unique Leadwell parts catcher design works well with the bar feeder option to improve productivity. Parts are transferred outside the operator door, which eliminates the need to stop the machine to unload finished parts.

- This option can be easily added to any T-5 series machine.
- Used with the Bar Feeder option, the T-5 becomes an unmanned machine.



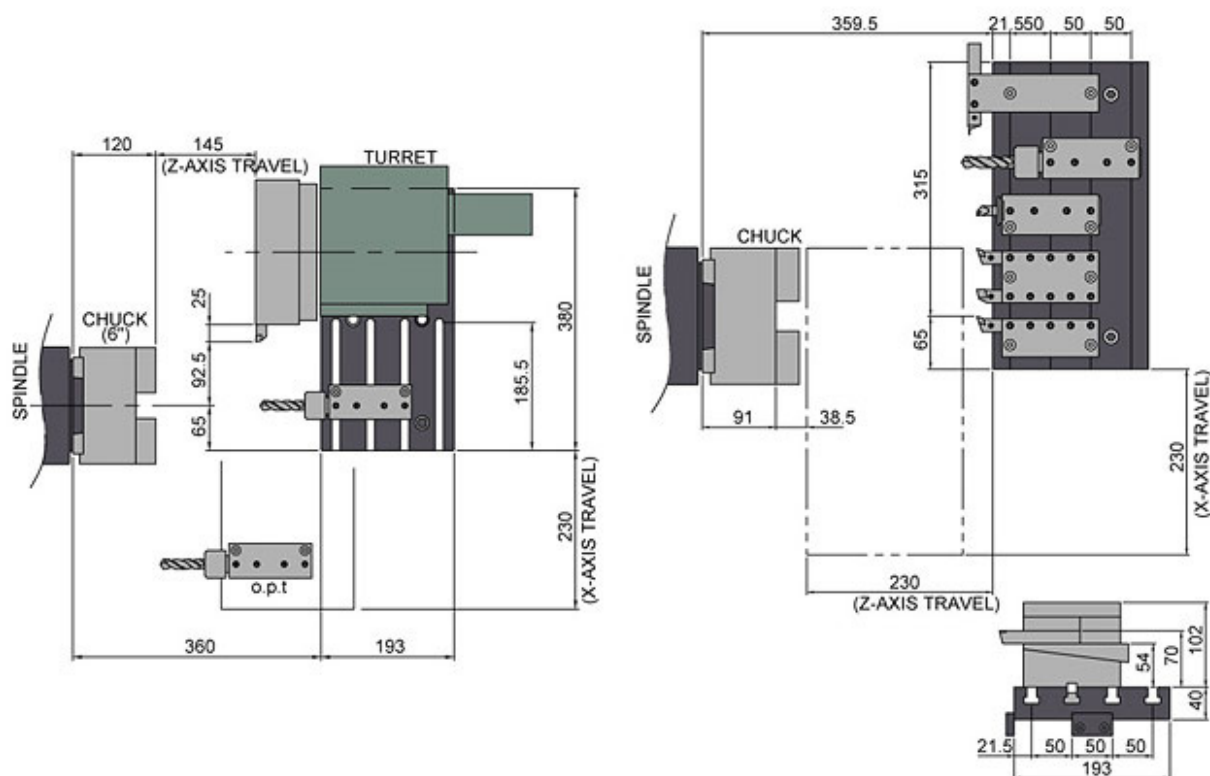
Tooling interference



Turret

A quick indexing 8 station automatic turret option is available for when more tools are required.

Gang tooling is standard on T-5 series CNC Turning Centers. This simple to use system provides both low cost and fast tool - tool time. Tools are mounted in fixed rigid holders, ideal for high volume parts that require small numbers of tools.



Machine Specifications

ITEM	MODEL	T-5	
CAPACITY	Unit	GANG TYPE	TURRET TYPE
Max swing	mm (in)		330 (12.99)
Max turning diameter	mm (in)		136 (5.35)
Max turning length	mm (in)		136 (5.35)
Bar capacity	mm (in)		41 (1.6)
TRAVEL			
X axis	mm (in)		230(9)
Z axis	mm (in)	230(9)	145(5.7)
SPINDLE			
Spindle speeds range	rpm		4500
Chuck size	in		6
Spindle nose			A2-5
Spindle motor power	KW (HP)		7.5 (10)
TURRET			
Number of tool stations	pcs	6	8
Shank height for square tool	mm (in)		16 (0.625)
Shank diameter for boring bar	mm (in)		25 (1)
FEEDRATE			
X,Z axis rapid traverse	m/min (ipm)		24/24 (945/945)
MOTORS			
X axis motor	kw (HP)		1.2 (1.6)
Z axis motor	kw (HP)		1.2 (1.6)
MACHINE SIZE			
Total machine weight	kg		2500
Machine length	mm (in)		1993 (78.46)
Machine width	mm (in)		1220 (48.03)
Machine height	mm (in)		1583 (62.32)
Power requirements	KVA		15
Computer control	FANUC		Oi-MATE-TC

STANDARD ACCESSORIES

- RS232 interface
- Fully enclosure guarding
- Work light
- Heat exchanger
- Leveling screws and pads
- Maintenance tool box
- Buzzer
- 3" jaw open center chuck
- Foot peddle switch
- Wide angle v-belt
- Spindle side coolant nozzle
- Gang type

OPTIONAL ACCESSORIES

- Metric disc
- Parts catcher
- Alarm lamp
- Bar feeder
- Auto door
- Tool tip air blow nozzles
- High pressure coolant
- Collet chuck
- Chip conveyor outside machine
- Chip bucket
- Transformer
- 6000 rpm spindle
- FANUC Oi-TC

MACHINE DIMENSIONS

