



# BenchTurn 7000 CNC Turning Center

The BenchTurn 7000 is a benchtop CNC turning machine for learning environments. The 7000 comes equipped with 2-axis stepper motors, ball screws, a variable speed brushless spindle motor, limit/home switches, and an MT3 taper spindle with MT2 taper tailstock. This system requires no assembly, arriving at your facility ready to run on an Ethernet port on a standard PC, and fits comfortably into any classroom without sacrificing features. Like larger industrial machines, the BenchTurn 7000 uses EIA, ISO, and FANUC™-compatible G&M code programs to cut parts in a variety of materials.



## Standard Features

- Ethernet-based control
- Brushless spindle motor
- Full enclosure with automatic safety door lock
- Tailstock
- Automatic diagnostics and power cut off protection
- PC-based CNC software
- Coolant-ready
- Jog pendant-ready
- Robotic integration-ready with 6 inputs, 6 outputs
- No assembly required

## Included Accessories

- 4" 3-jaw chuck with key
- 4-station automatic tool turret
- One shot lubrication system
- Internal work light

## Accessory kit includes:

- (1) Chuck key
- (1) Chuck jaw set
- (2) Dead centers
- (1) 4-pc. Allen wrench set
- (1) 2-pc. Open-end wrench set
- (1) 2M Ethernet cable
- (1) Storage box
- Misc. accessories

## Specifications

### Axis Travel

X Axis, max	75 mm	2.96"
Z Axis	250 mm	9.84"

### Work Area

Swing over bed	200 mm	7.87"
Swing over cross slide	100 mm	3.94"
Max dist. between centers	360 mm	14.17"
Bed width	100 mm	3.94"

### Spindle

Motor Type	Brushless	
Motor power	500 W / 0.67 HP	
Spindle speed	100-3000 RPM	
Spindle taper	MT3	

### Tooling

Automatic tool position	4	
Tool post angle	360 deg.	
Tailstock taper	MT2	
Tailstock travel	50 mm	1.97"

### Accuracy

Position accuracy	0.015 mm	0.0006"
Repeatability	0.010 mm	0.0004"

### Dimensions

#### Machine size

Width	1093 mm	43.00"
Depth	864 mm	34.00"
Height	565 mm	22.25"

#### Shipping size

Width	1435 mm	56.50"
Depth	1020 mm	40.15"
Height	960 mm	37.75"

### Weight (approximate)

Machine weight	170 Kg	353 lbs
Shipping weight	220 Kg	485 lbs

### Axis Drive Motors

Axis motor type	Stepper	
X axis	1.35 N-m	192 oz-in
Z axis	1.35 N-m	192 oz-in
Rapid feed rate	2000 mm/min	79 ipm
Feed rate	500 mm/min	20 ipm

### Air Supply\*

\*Only required for optional pneumatic accessories:  
620 kPa (90 psi)  
1/4" NPT female connection provided

### Control Software

EIA RS274-D standard G & M code compatible  
FANUC® compatible  
CAD/CAM compatible  
Advanced NC code editing  
Real-time or simulated graphic tool path verification

### Computer System Requirements

Intel / AMD Single Core 1.6GHz  
512MB RAM  
300MB Available Disk Space  
Windows XP SP3 / Vista / 7 - 32 or 64bit  
1 available LAN port\*

\*Additional LAN port required if your computer requires wired network access

### Power Requirements

#### United States

115 VAC (+5%/-10%) 60 Hz, 20A

#### International

230 VAC (+5%/-10%) 50 Hz, 8A

