

# FlexCNC

## G-SERIES

### FLEXCNC VERTICAL MACHINING CENTER

The Best Priced and Most Flexible Vertical Machining Center in the world. The FlexCNC G-Series Vertical Machining Center ranges in size from 10' to 80' long, in addition to our standard sizes, we design and build custom machines to suit your needs.

The FlexCNC drills, mills, taps, and bevels large parts in one setup. Available in CT or BT 40/50 with a max torque capability of 368 ft/lbs. The G-Series features a mono-block, welded steel frame with high rigidity and a T-slot machine bed. The machine is moved along oversized precision linear guideways. The moving parts are self-lubricating on all axes and the machine's spindle is driven by a programmable servo-motor. Including dual drive on X-axis with helical rack and oversized ball screw on Y & Z-axis.



**COMPLETE METALWORKING SOLUTIONS**

(800) 991-4225

ISO Certified

[www.ahbinc.com](http://www.ahbinc.com)

[customerservice@ahbinc.com](mailto:customerservice@ahbinc.com)



# FlexCNC

## Standard Features

- Bed Frame with Chip Auger
- T-slotted Table
- Delta Tau Controls
- 22" Touch Screen Monitor
- 10-Station Automatic Tool Changer
- Mobile Control Panel
- Flood Coolant
- Through Spindle Coolant 51 psi
- 18 HP Motor
- CT40 Spindle
- Tool Calibrator
- LED Machine Light
- RJ45 Ethernet Connection
- Keyboard + Mouse
- Leveling Blocks
- Laser Scanner Barrier on Front of Machine
- Light Curtain on the Rear of the Machine

## Supplied by Customer

Ethernet connection (RJ 45) near the machine, this allows FlexCNC to log in for:

- checking/modifying machine programs - FlexCAM
- load software-updates

## The Control + Hand Pendant

The control on the FlexCNC is designed to emulate the Fanuc 31i, with ISO G & M-code programming for dynamic 3 axis machining along with an optional 4th axis. Indefinite read ahead capability which allows the machine to flawlessly and smoothly machine 3D tool paths as well as smooth helix and ramping tool paths. Equipped with a color 22" touchscreen control, 40 GB of program storage and programmable zero-points. Load programs with a USB or through an ethernet connection.

The AMI5000 Remote Pendant is used as a Human Machine Interface (HMI). It uses EtherCAT communications technologies to interface with ANCA Motion Control System Software, allowing fast and flexible access for real-time control.

## Repeatability Accuracy

X: +/-0.001  
Y: +/-0.0007  
Z: +/-0.0005

## Position Accuracy

X: +/-0.002  
Y: +/-0.0015  
Z: +/-0.001



# FlexCNC

## 22" Fanless Screen i5-6300U Processor



### Features

- Industrial-grade 21.5" LCD panel with 50k backlight lifetime
- True-flat touchscreen with multi-touch projected capacitive control
- High-performance, fanless 6th generation Intel® Core™ i processor
- Up to 16 GB DDR4 SDRAM
- Compact, fanless design with aluminum alloy enclosure
- IP65-rated front panel
- Supports dual displays (1 x external HDMI)
- Supports full-size mini PCIe expansion
- Supports USB 3.0
- Supports VESA 100

## RPM and Capacity

The G-Series FlexCNC is available in several models. The standard configuration operates with an 18 HP motor and a CT40, 4000 or 6000 RPM spindle.

## Technical Data and Pricing

<b>Spindle Motor</b>	18 HP-4,000 RPM or 6,000 RPM/25 HP-12,000 RPM CT40/75 HP-12,000 RPM CT50					
<b>Spindle Type</b>	CT/BT 40/50					
<b>MaxTorque</b>	4,000 RPM 92 ft/lb	4,000 RPM (ZF) 368 ft/lb	6,000 RPM 74 ft/lb	6,000 RPM (ZF) 250 ft/lb	12,000 RPM CT40 33 ft/lb	12,000 RPM CT50 150 ft/lb
<b>Length of Table X (ft)</b>	10/15/20/25/30 or customized					
<b>Width of Table Y (ft)</b>	4'	6'	8'	10'		
<b>T-Slots (# of)</b>	6	8	11	13		
<b>Stroke X-Axis (ft)</b>	10/15/20/25/30 or customized					
<b>Stroke Y-Axis (ft)</b>	4/6/8/10 or customized					
<b>Stroke Z-Axis</b>	20"					
<b>Distance spindle-table</b>	CT40 5"-25" CT50 3"-23"					
<b>Table Height (ft)</b>	2.9'					
<b>Speed X-Axis</b>	1000"/min					
<b>Speed Y-Axis</b>	1000"/min					
<b>Speed Z-Axis</b>	189"/min					

# FlexCNC

Model	G-Series 10-04	G-Series 15-04	G-Series 20-04	G-Series 25-04	G-Series 30-04
Table / stoke X/Y (ft)	10 x 4	15 x 4	20 x 4	25 x 4	30 x 4
Model	G-Series 10-06	G-Series 15-06	G-Series 20-06	G-Series 25-06	G-Series 30-06
Table / stoke X/Y (ft)	10 x 6	15 x 6	<b>20 x 6</b>	25 x 6	30 x 6
Model	G-Series 10-08	G-Series 15-08	G-Series 20-08	G-Series 25-08	G-Series 30-08
Table / stoke X/Y (ft)	10 x 8	15 x 8	20 x 8	25 x 8	30 x 8
Model	G-Series 10-10	G-Series 15-10	G-Series 20-10	G-Series 25-10	G-Series 20-10
Table / stoke X/Y (ft)	10 x 10	15 x 10	20 x 10	25 x 10	30 x 10
<b>12,000 RPM Package CT50</b>	CT50 Spindle, 20 ATC, 12,000 RPM, 150 ft/lbs				
<b>High Output Package</b>	CT50 Spindle, ZF Gear Box, 20 ATC, 4,000 RPM, 368 ft/lbs				
<b>High Output Package</b>	CT50 Spindle, ZF Gear Box, 10 ATC, 4,000 RPM, 368 ft/lbs				
<b>12,000 RPM Package CT40</b>	CT40 Spindle, 12,000 RPM, 33 ft/lbs				

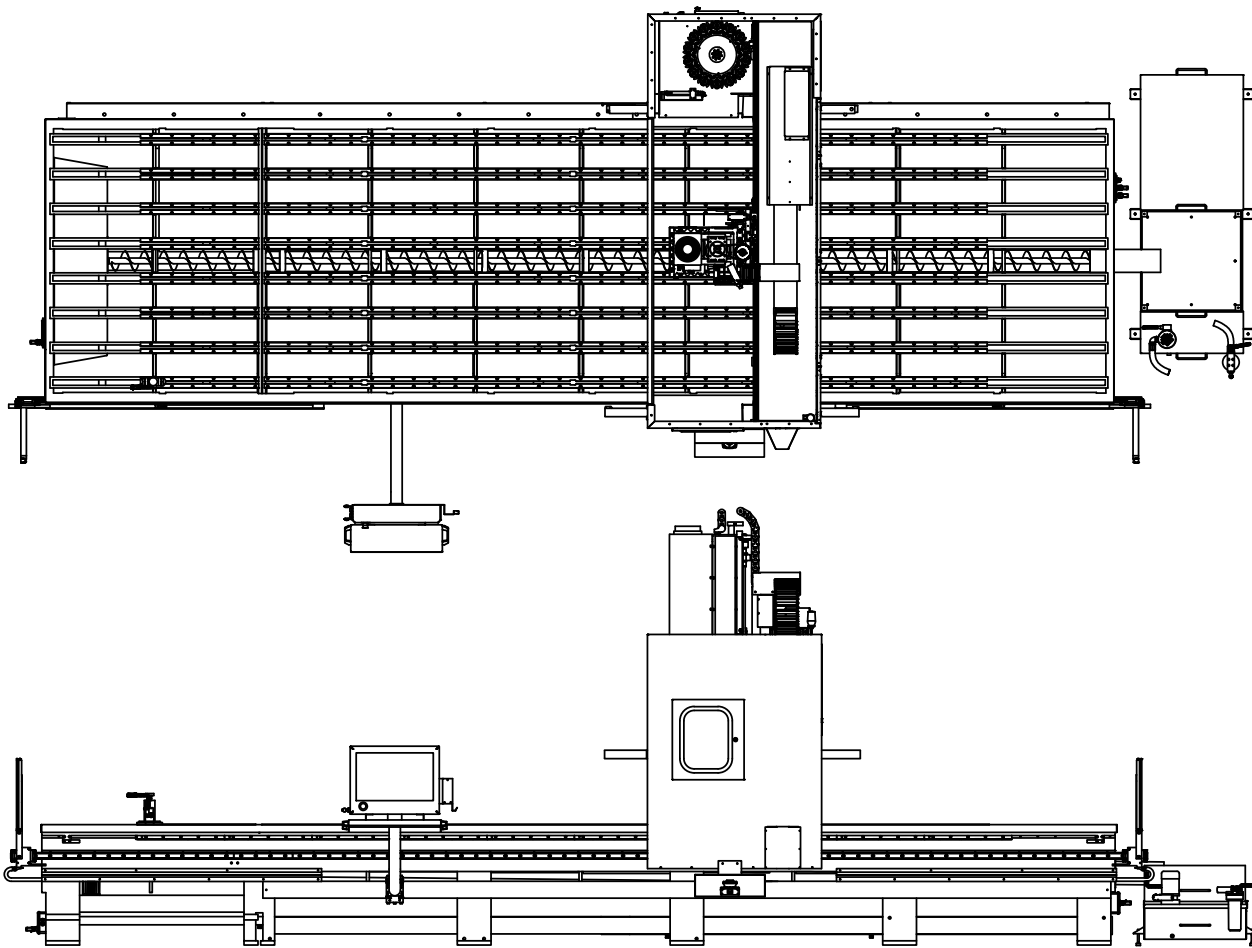
## Additional Accessories

- CT50 with 10 ATC
- ZF Gearbox
- Z-Reader Probe (measuring height of workpiece)
- Renishaw Probe + Software, auto zero-point setting, part inspection
- Tool Break Detection
- Safety Laser Scanner on Rear
- Light Curtain Y-Axis (protection across the gantry Y-axis)
- External Air Blast
- Through Spindle Air Blast
- External Micro Spray
- External Paste Spray (flow drilling)
- External Oil Spray (form tapping)
- 4<sup>th</sup> Axis with 10" Platter (includes Y-axis adjustable table with guides + 3 jaw chuck)
- 4<sup>th</sup> Axis with 16" Platter (includes Y-axis adjustable table with guides + 3 jaw chuck)
- ATC CT40 24 Tools (upgrade from 14 tools)
- ATC CT50 20 Tools(upgrade from 10 tools)
- Hand Pendant
- FlexCAM

# FlexCNC

## Additional Accessories (cont.)

- Universal Pneumatic Clam
- Pneumatic Vises for Rounds (4th axis applications)
- Multi-Pneumatic Clamp
- Bellows on the roof, Z-axis cover, and X-axis
- Raised Gantry  $\leq 6''$  Double X-axis guides not necessary
- Raised Gantry  $> 6''$  but  $\leq 10''$  Double X-axis guides necessary
- Double X-Axis Guides for 20' bed
- High Pressure Through Spindle Coolant 300 psi
- Top Cover Roof



G-Series	10-04	10-06	15-04	15-06	20-04	20-06	25-06
X [in]	235	235	293	293	352	352	413
Y [in]	143	154	143	154	143	154	154
Z [in]	123	123	123	123	123	123	123

All dimensions are approximate and in inches.