

### **C-SERIES**

#### FLEXCNC VERTICAL MACHINING CENTER

The Best Priced and Most Flexible Vertical Machining Center in the world. The FlexCNC C-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 with a max torque capability of 92 ft/lbs. The C-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 X-axis with helical rack and oversized ball screw on Y & Z-axis.



# 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: +/-0.0007 Y: +/-0.0005 Z: +/-0.0005

#### **Position Accuracy**

X: +/-0.002 Y: +/-0.001 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<sup>®</sup> Core<sup>™</sup> 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 C-Series FlexCNC is available in several models. The standard configuration operates with an 18 HP motor and a 6000 RPM or 4000 RPM spindle.

## **Technical Data and Pricing**

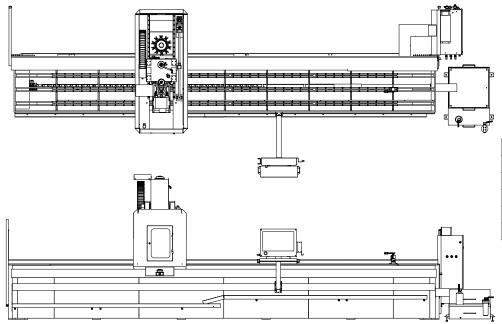
| Spindle motors  | 18 HP Motor-6000 RPM/4000 RPM/25HP 12000 RPM |         |                       |         |         |                        |         |
|-----------------|--|---------|-----------------------|---------|---------|------------------------|---------|
| Spindle type    | CT40 or BT40                                 |         |                       |         |         |                        |         |
| Max Torque      | 6000 RPM<br>74 ft/lbs                        |         | 4000 RPM<br>92 ft/lbs |         |         | 12000 RPM<br>33 ft/lbs |         |
| Length of table | 10 feet                                      | 15 feet |                       | 20 feet | 25 feet | 30 feet                | 35 feet |
| Width of table  | 2 feet                                       |         |                       |         |         |                        |         |
| T-slots         | 3 T-slots 20 mm, distance 250 mm             |         |                       |         |         |                        |         |
| Stroke X-axis   | 10 feet                                      | 15 feet |                       | 20 feet | 25 feet | 30 feet                | 35 feet |
| Stroke Y-axis   | 2 feet                                       |         |                       |         |         |                        |         |
| Stroke Z-axis   | 18"  |         |                       |         |         |                        |         |
| Spindle-table   | 6-24"  |         |                       |         |         |                        |         |
| Speed X-axis    | 1000 in/min                                  |         |                       |         |         |                        |         |
| Speed Y-axis    | 1000 in/min                                  |         |                       |         |         |                        |         |
| Speed Z-axis    | 378 in/min                                   |         |                       |         |         |                        |         |



| Model                  | C-Series 10-02 | C-Series 15-02 | C-Series 20-02 | C-Series 25-02 | C-Series 30-02 | C-Series 35-02 | C-Series 40-02 |
|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Table / stoke X/Y (ft) | 10 x 2         | 15 x 2         | 20 x 2         | 25 x 2         | 30 x 2         | 35 x 2         | 40 x 2         |

#### **Additional Accessories**

- 12,000 RPM Spindle
- Z-Reader Probe (measuring height of workpiece)
- Renishaw Probe + Software, auto zero-point setting, and part inspection
- Tool Break Detection
- 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 adjustable Y-axis table with guides & 3 jaw chuck)
- 4<sup>th</sup> Axis with 16" Platter (includes adjustable Y-axis table with guides & 3 jaw chuck)
- ATC CT40 16 Tools (Upgrade from 10 tools)
- Lower Machine Bed 3"(spindle to table 9"-27")
- Universal Pneumatic Clamp (and hardware)
- Pneumatic Vises for Rounds (4th axis applications)
- Multi-Pneumatic Clamp
- FlexCAM
- Hand Pendant



| <b>C-Series</b> | X [in] | Y [in] | Z [in] |
|-----------------|--------|--------|--------|
| 10-02           | 221    | 120    | 100    |
| 15-02           | 276    | 120    | 100    |
| 20-02           | 340    | 120    | 100    |
| 25-02           | 399    | 120    | 100    |
| 30-02           | 464    | 120    | 100    |

All dimensions are approximate and in inches.