



## **CAMPRO NU-550 Bridge Type 5 Axis Machining Center**

### **Innovative Design Concepts**

- The NU Series 5 Axis Machining Center gives your workshop the versatility to machine complex components without the expense or large footprint of a swivel head machine.
- Double arm supported A and C axes.
- Using the integrated trunnion table design is the easiest upgrade path for 3 Axis machine workshops as the approach to part tooling is very similar and reduces the training time required for your operators.
- The X, Y, and Z axis on this machine all feature heavy duty roller type linear guideways to maintain precision positioning under rapid movement and heavy loading.

## STANDARD FEATURES:

- Twin Arm 32 Tool ATC
- Tool Change Time (Tool To Tool) 2.5 sec.
- Tool Change Time (Chip to Chip) 5.0 sec.
- 290 PSI Spindle Through Coolant
- Portable Manual pulse generator
- Massive One-piece Meehanite cast iron bed
- One-piece Monoblock column and Y-Axis structure
- Chip Augers
- Double Anchored, Pre-tensioned Ballscrews
- Fast 1,417 IPM Rapid Traverse rate
- Work light
- Operator call lamp (red, yellow, green)
- Spindle load meter
- Auto Power Off
- 12,000 rpm I.D.D. spindle
- Roller type linear guides on 3 axes
- Spindle oil cooler
- Full-enclosed splash guard
- Spindle air blast system
- Telescope covers on 3 axes
- Pneumatic system
- Automatic lubrication system
- Coolant flushing device
- Oil-coolant separator
- Heat exchanger for electrical cabinet
- Instruction manual, parts list, and electrical diagram

## SPECIFICATIONS:

### CAPACITY:

X axis travel	22.8"
Y axis travel	31.4"
Z axis travel	21.6"
A axis travel	+ 30 ~ 120 degrees
C axis travel	360 degrees
Table loading area	21.6" diameter
Allowable table load	660 pounds

### A-axis:

Transmission	Worm Gear
Speed reduction ratio	1:120
Tilting Angle	+ 30 ~ 120 degrees
Maximum speed	11.1 RPM

### C-axis:

Transmission	Worm gear
Rotation angle	360 Degrees
Maximum Speed	16.6 RPM
Indexing angle	.001 deg.

**SPINDLE:**

Spindle nose to table top	3.1" – 24.8"
Spindle taper	CAT 40 Big Plus
Spindle speed	12,000 RPM
A.C. spindle motor (30 min.)	15/20 HP
Spindle Driving Method	I.D.D. (Inline Direct Drive)

**AUTOMATIC TOOL CHANGER:**

ATC Type	Twin Arm Type
Number of Tools	32
Tool Shank	CAT 40
Max. Tool Dia.	2.9"
Max tool Diameter (No Adjacent Tool)	4.9"
Max. Tool Length	11.8"
Max. Tool Weight	15.4 lbs. (7 KG)
Tool Change Time TOOL – TOOL	2.5 sec
Tool Change Time CHIP – CHIP	6.0 sec
Tool Selection	Random Bi-Directional

**MOTION:**

X and Y axis rapid traverse rate	1,417 IPM
Z axis rapid traverse rate	1,181 IPM
Slide Type	Roller Type Linear Guide Ways
Least command increment	.001mm,
Positioning accuracy	+/- .00020" (full stroke)
Repeatability	+/- .00008"

**Why U need the U Series 5 Axis:**

The new U Series 5 Axis Machining Center gives your workshop the versatility to machine smaller less expensive components without the expense or large floor plans of a swivel head machine.

**Perfect for Small Batch Production:** If you need to machine less expensive components economically, the trunnion type 5 axis machine is the perfect choice as it delivers greater machining volume compared to more expensive swivel head machines.

**Extended Undercut Capability:**

The U series machine delivers 120 trunnion swivel which allows you to complete components in a single set up without the repositioning that could be required on other machines.

**Greater Working Volume within a smaller space:**

As the movement is handled by the worktable rotation, there is no need for a large working area to accommodate a swivel head. You can save on space as well as costs.

**Higher Cutting Speed Longer Tool Life:**

With the 5 Axis design, you use shorter tools that can be oriented toward the cutting surface. This means that you cause less stress to the cutting tools at high speeds and can prolong cutting tool life, saving your money.

### **Unique I.D.D. Spindle Design:**

Ceramic ball bearing in the spindle to carry out high dynamic accuracy, high rigidity, and also provides longer service life. Direct-driven spindle motor ensures better torque transmission, decreased noise and backlash, and reduced vibration. Inline, direct-driven spindle that is coupled directly to the motor provides smooth operations for excellent surface finishes and is equipped with a spindle oil cooler which reduces operating heat for greater thermal stability.

### **Complex Shape Machining One Set Up:**

For prototyping, you can machine extremely complex shapes directly from a solid block, so you have no need to first go through a casting process and then machining. This drastically reduces your production time and save you significant money on the casting part of the process.

