

2.1.6.1.2 CNC Machine Tool Solution

Delta's CNC Solution features high-speed, high precision and superior surface finishing that enhances the speed, quality, stability of CNC machine tools. It is particularly suitable for high-speed tapping, engraving and milling processes, mold machine manufacturing, component processing and manufacturing, and many other industries.



ประเภทสินค้า : CNC

Application

Engraving and Milling Machines / Gantry Milling Machines / Machining Centers / High-speed Tapping Machines / and many more machine tools.

Specification

- Built-in 32-bit high speed and high processing dual CPU for multi-tasking operation for enhanced performance
- High-speed communication servo drives and high performance, high resolution servo motors provide fully digital data transmission and improved noise immunity capabilities
- High speed and high precision motion control with the aid of Delta's DMCNET high speed motion control system
- Multi-block look-ahead of acceleration/deceleration before interpolation for complete contouring control balances speed and precision to improve processing efficiency and ensure machining productivity
- A user-friendly Human Machine Interface for direct auto-gain tuning adjustment and parameter back-up of servo system

- Data synchronous management between a PC and an NC via Ethernet communication network
- CNC Soft software allows users to build custom screens for user-defined operation
- Serial I/O module for flexible system configuration and extension
- USB interface for easy data access, convenient data backup and parameter copies for fast installation
- Delta's ECMC series servo motors for feed axes are equipped with high-resolution 20-bit motor encoder and up to 1 kHz speed response frequency
- Delta's 3-axis synchronous ASDA-M servo system offers excellent multi-axis motion control with only one CPU and advanced synchronous gantry control
- PN power sharing of multiple axes for energy saving
- Built-in fine interpolation commands, friction compensation, and full-closed loop control functions
- For high-speed CNC tapping machinery, Delta's ECMS series high-speed permanent magnet spindle motor features a rated speed of 6000 r/min and maximum speed of 12000 r/min
- Connecting to energy-saving C-Box for power storage absorbs brake energy regeneration and reduces electricity usage by more than 50%

Application Examples

Engraving and Milling Machines



■ Delta's all-in-one CNC controller supports practical and user-friendly operation. By integrating with high resolution servo drives and motors, the Delta CNC Solution works effectively for high speed engraving and milling machines for complex geometric contours processing.



NC300 **ASDA-A2** **VFD**
ECMC

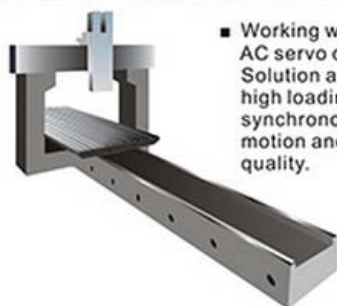
High Speed Tapping Machines



- The vertical CNC controller with PM spindle motors provides a high speed and high precision Delta CNC Solution which effectively applies to high speed tapping machines for the best tapping quality.



Gantry Milling Machines



- Working with a three-in-one AC servo drive, the Delta CNC Solution achieves high precision, high loading, multi-axes and synchronous control for a smooth motion and superior machining quality.



Machining Centers



- The Delta CNC Solution offers a numerical control interface with tool editing and management functions that is a perfect fit for various machine centers and composite processing.

