

HYDROMAT CNC

...speed plus flexibility

Speed and flexibility are at the heart of a new Windows NT CNC control from Hydromat, St. Louis, MO. Coupling the two provides changeover flexibility for quick-response, just-in-time short production runs, while meeting the competitive demands of high-volume machining applications. Lots low as 5,000 pieces can be run with complete part changeovers on Hydromat CNC machines taking from minutes to a couple of hours due to fully programmable speeds and feeds, quick-release collets and presettable tool-heads.

According to Jim Otten, Vice President, Sales & Marketing, the Windows NT CNC is totally user-friendly. "Part programming the Hydromat CNC is as simple as using a PC in your home or on your desk at the office," Otten says. "The menu-driven Windows NT operating system makes the most of operators' time. An operator can develop a program on-line or off-line without the need for special programming languages."

The combination of speed and flexibility permits programming and part setups for initial sample parts or prototyping and makes JIT and simultaneous engineering practical realities. The CNC provides full control single-point machining using 2-axis interpolation to generate radii or form requirements. Single-axis or dual-axis hydraulic servo machining units on Hydromat's modular design concept offer precision transfer machining.

Servo technology melds high uptime and low maintenance through high-precision components in a totally closed-loop system, providing continuous feedback to ensure consistent accuracy and repeatability.

"CNC also opens the opportunity to integrate a variety of optional control and monitoring capabilities," says Otten, "such as on-screen power display, tool monitoring and infinitely variable unit speed control for each machining station."

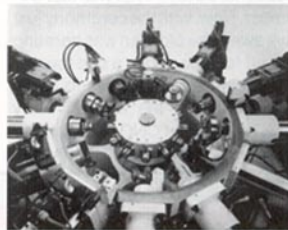
A GE Fanuc programmable logic controller (PLC) oversees general machine control. Open architecture allows the interface of a Pentium processor with programmable multi-axis servo controllers. The Pentium processor is equipped with a 105 megabyte hard disk and a 3-1/2" floppy drive.

Motion control programs are processed by the Pentium and transferred to the servo controllers via the GE Fanuc PLC. The servo controller executes motion control programs in a multi-tasking environment handling up to 40 independent axes. The servo positioning drive package consists of proportional valves with linear scales embedded into the tool spindle units. The axis position control has the capability of storing 256 motion control programs simultaneously.

According to Otten, CNC part programs can be developed at the control by the operator while the machine is running. "The part programs," he says, "can be automatically generated by us-

ing the program development setup applications where the operator needs only to enter feed rates and position moves."

Programs can be offset on-the-fly. Complete program changeovers can be downloaded from a host computer or done off-line on any PC, then delivered to the Fanuc PLC on floppy disk.



"The advantage of the Hydromat Windows NT CNC," Otten says, "is that it blurs the line between speed and flexibility. You don't have to choose between high-volume production and short-run flexibility. With the Hydromat CNC you get both. The simplicity and user-friendliness allows operators to drastically reduce changeover times."

Hydromat Inc. is the industry leader in the manufacture and assembly of precision transfer machines, Rotary, Inline and Trunnion, as well as the new Rismat line, and has a reputation built on a commitment to product quality, customer service and technological innovation.

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