

BRINGS FULL CNC POWER TO YOU

The Dynamic Power of VICTOR DCL is FANUC 20i-TB CNC System

- Great for shops wanting to go from manual to CNC
- Rapid set-up times & easy to use like a manual machine
- Exact precision & repeatability like a CNC machine
- Full CNC productivity without the expensive training
- True Teach-In automatically creates part program
- Perfect for small to medium quantity production
- Jog complicated shapes using only ONE handwheel
- Simple to use graphic conversational machining cycles
- Full manual control of all automatic operations
- Manual Interrupt of all automatic operations



Intuitively “Easy-to-Learn” Control Panels

It's Three Machines in ONE!

A variable speed manual lathe w/ DRO & CSS!

The Victor DCL is as simple to operate as a manual lathe. The X and Z axis electronic handwheels allow you to jog the cross-slide just like a manual machine. The CNC screen acts as a sophisticated DRO system with tool offset library and constant surface speed features. The third handwheel allows “advanced” manual machining of more complicated angles and curves.

A Easy to use Teach-In / Playback CNC Lathe

The Victor DCL is the perfect machine for low quantity - prototype turning work. The Teach-In / Playback feature allows you to quickly machine your first part using a combination of handwheels and/or the Graphic Conversational Machining Guidance Screens. While the first part is being machined, the Teach-In function automatically converts all your machine movements and button presses into a G-Coded program.

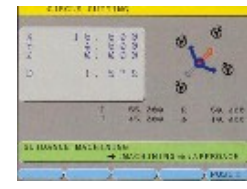
After the first part is complete, the operator can immediately Playback the program to create exact copies of the previous part. The power of this Teach-In feature is that it creates a G-Coded program that can be easily edited or saved for later execution. The G-Coded program outputted by the Teach-In feature can even serve as a learning tool for your operators to get familiar with the world of CNC programming.

A Sophisticated CAD/CAM capable CNC Lathe

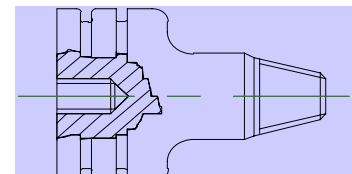
The Victor DCL is also high powered CNC Lathe able to accept output from any CAD/CAM system that supports the FANUC family of CNC's. This CAD/CAM capability makes the power of the Victor DCL virtually limitless. If you can draw it, then you can machine it!

With Full CNC power such like automatic turret, hydraulic chuck, hydraulic tailstock, and auxiliary power relays for user specified functions, the Victor DCL can be setup to do full CNC production.

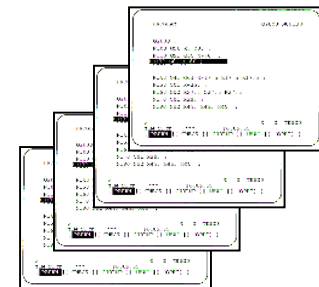
Teach-In / Playback Operation Flow Chart



Graphics conversational part programming



Automatically machining of part via machine guidance





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FANUC 20i-TB CONTROL SPECIFICATIONS

- Fanuc 20i-TB ultra-compact CNC integrated with 8.5" LCD display and 44-key keypad
- High quality engineering at FANUC ensures reliable technology and performance
- Fiber Optical Fanuc Digital Servo Amplifiers immune to interference from electrical noise
- Fanuc AC Digital Servo System with high resolution absolute encoders
- CompactFlash memory slot for program & data storage (Requires optional PC Card adapter)
- 2-axis (X & Z) digital readout screen
- Simultaneous 2-axis linear and circular interpolation
- Manual operation via handwheels
- Machining guidance operation via handwheels
- Teach-in / Playback operation: manually run 1st part, then Playback for automatic operation
- Automatic Generation of G-code from Geometry data during teach-in operation
- Full CNC G-code, M-code, T-code, and S-code Functions
- Simultaneous multiple M-code processing (Up to 3 M-codes)
- Custom Macro B Programming Language for G-code programming (optional)
- Real time tool path line graphics (Optional 3D solid model tool path graphics available)
- 6 CNC Operation Modes: MEM, EDIT, MDI, Mchn Gdnce, Man/Hndwl, Ref Return
- 6 Auxiliary CNC Modes: M-code Teach Off, Dry Run, Single Block, Optional Blk Skip, M01 Stop, and Manual Handwheel Interrupt
- Manual Interrupt of automatic operations: Handwheel Interrupt and Spindle Interrupt
- Constant Surface Speed (CSS) control for manual and automatic operations (Standard)
- Conversational graphics programming
- Diameter / Radius programming
- Absolute and incremental programming
- Inch / Metric input and display
- On-line calculator function to aid in data input
- On screen tool path graphics to verify part program
- Taper, Chamfer, Radius, Roughing, Grooving, & Drilling in Manual and Automatic modes
- Inch/Metric threading; Straight, Taper, and Multi-lead threading
- X-Area Minus Area Cutting Function (Cutting from backside of part)
- User programmable "Software Travel limits" to limit the travel for X & Z axes
- Intelligent hardware travel limits - only stops movement in the over-travel direction
- Inch / Metric feed rate input: inch/rev and inch/min or mm/rev and mm/min
- Gear indicator lights on status panel
- Auto spindle jog during gear changes
- Spindle load meter: 0% - 180% of rated load
- Lock switch for disabling parameter and program modification
- Conveniently mounted machine controls on apron - E-Stop, Playback, Start, Stop
- Aux. Controls on apron: work lamp, coolant, and CSS on/off
- Spindle control on apron: forward, reverse, stop, and speed dial
- Auto/Jog feedrate override: 0% to 200%
- User selectable Jog / Feedrate override profiles: Linear or Exponential



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CONTROL SPECIFICATIONS (continued)

- Spindle override: 50% to 150%
- Rapid Traverse override: 12.5%, 25%, 50%, & 100%
- Incremental / continuous jog for X & Z axes
- Intelligent Bi-directional home search for X & Z axes
- Triple electronic handwheels for manual and automatic turning operations (Simultaneously)
- Multiplier switch for handwheel sensitivity: 0.0001", 0.001", & 0.01"
- CNC "**RUN VERIFY**" by Joystick or handwheel for all automatic operations
- Easy one touch X-Z Part Coordinate System setting
- Full CNC control of coolant on-off functions via M-codes
- Full CNC control of work light on-off functions via M-codes
- CNC M-Code Controlled Power Contactors for controlling various accessories (Optional)
- Three coordinate systems: Machine, Absolute, & Relative
- Program storage 63 part program storage, 80 meters of paper tape (262 feet)
- Backlash error compensation
- Ballscrew pitch error compensation (from Laser Calibration Data)
- Built-in RS-232 port for loading/unloading of part programs and other CNC data
- 16 Tool Geometry and 16 Tool Wear offsets with tool nose radius compensation
- Self diagnostics with error messages on screen