

FAGOR CNC 8055 iA-MC Control

The **Fagor 8055 iA-MC CNC** control combines value & reliability with a featured packed modular control. This control was built for the shop environment with a rugged keyboard and modular design. The unique and very powerful operating system consists of 2 systems within 1 control. Utilizing a 100% very easy to program Icon Key based conversational programming system or a Conventional ISO G-code programming system within the same control. You may toggle between the two operating systems at any time by simply pressing *shift-esc*. There are many benefits to this, one is the ability of the control to adapt to the operator/programmers ability, another very valuable benefit is you now have a Machine that is not only ideal at complex large run production parts, but also perfect for quick set-up small lot production. The Fagor “**Icon Key**” programming method greatly simplifies the programming process even compared to more conventional conversational systems. Graphic assist is utilized within all programming screens thus enabling “true” fill in the blank programming.



CNC 8055 SERIES

MAIN LAYOUT

- Fully alpha-numeric keyboard
- 4 axis control
- 8 feedback ports
- Integrated powerful PLC w. logic analyzer
- USB port for easy program uploading
- RS 232 serial port
- RS 422 port
- 11” Color flat screen monitor
- Compact Design
- Manual feedrate override (0-120%)
- Spindle speed override (50-120%)
- Cycle start and stop keys
- Spindle start and stop keys
- Automatic input voltage sensing with range from 85VAC to 265VAC single phase
- 512 MB flash memory
- Graphic coprocessor
- Digital probe input

OPERATING MODES

- Execution mode
- Single block mode
- MDI/Teach-In mode
- Jog/Manual mode

- Communications mode
- Conversational mode
- Edit mode with graphic assist
- Simulation mode
- Background editing mode
- Tool Inspection mode
- Parameter mode
- Diagnostics mode
- Tool offset mode
- Utilities mode
- Graphic Editor mode (cycle customization)
- Graphic Display with zoom mode

BASIC PROGRAMMING CAPABILITIES

- ISO G-code programming
- Arc Tangent to previous path
- Conversational programming
- Mirror imaging
- Rapid interpolation
- Tangential entry
- Linear interpolation
- Automatic chamfer blend
- Circular interpolation
- Programming in absolute arc center coordinates
- Programming in inches or metric
- Arc defined by 3 points
- Absolute or incremental programming
- Tangential exit
- Feedrate in inches per minute
- Part scaling in whole or part
- Feedrate in inches per revolution
- Main plane selection
- Constant tool surface speed
- Definition of lower or upper work area limits
- Programmable spindle speeds
- Zero offsets and auto deletion of offsets
- Programmable spindle gear change
- Preset of coordinate values
- Chamfering
- Probing capability
- Automatic radius blending
- Preset of polar origin
- Automatic square corner programming
- Automatic home reference
- Programmable single block
- Tool Life Management

CANNED CYCLES

- Drilling cycles
- Circular pocket cycles
- Deep hole drilling cycles
- Irregular pocket cycles
- Peck drilling
- Bolt-hole cycles
- Tapping cycles
- Graph sequence bolt hole cycles
- Reaming cycles
- Custom easy to use cycles
- Rectangular pocket cycles
- Digitizing & probing cycles

DOCUMENTATION

- Programming manual
- New features manual
- Operators manual
- LAN manual
- Installation manual
- CD-ROM with all manuals and brochures

HIGH LEVEL PROGRAMMING

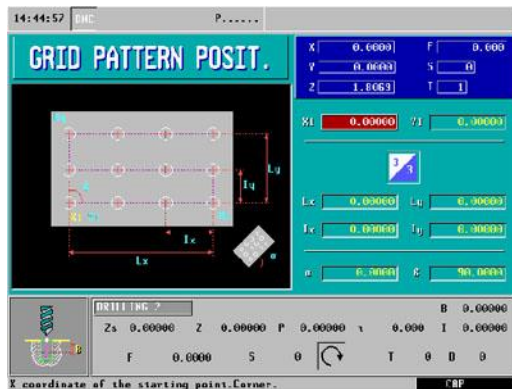
- Addition
- AND
- Subtraction
- OR
- Multiplication
- XOR
- Division
- NOT
- Square root off
- Binary conversion

- Sine
- Conditional jumps
- Cosine
- Unconditional jumps
- Tangent

- Message display
- Arc Tangent
- Subroutine calls
- Comparisons
- Much, much more

M-CODE FUNCTIONS

- M00 program stop
- M30 End of program return to 1st block
- M01 conditional program stop based upon conditional input status
- M41-M45 Spindle speed ranges
- M02 End of program
- M45 Auxiliary spindle or live tool
- M03 & M04 Spindle forward and reverse



- M0-M9999 All other M-codes are user
- M05 Spindle stop
- Definable for custom applications
- M06 Tool Change
- 99 BCD outputs
- M08 & M09 coolant on/off
- 255 Binary coded outputs
- M19 Spindle orientation

Fagor Intelligent Profile Editor- on-board mini CAD/CAM System

Blueprints do not always show the starting and ending points of each section or shape. Sometimes it suffices to just indicate the inclination angle of a section and other times it is enough to indicate that it is a tangent to the previous section.

With the Fagor Intelligent Profile Editor no calculations are required, simply enter the known data into the CNC and the CNC automatically calculates the Solution. When there is more than solution, all possible solutions are shown graphically so that you may choose the correct one.



Solid Graphics:

Solid Graphics allows the Operator to define the existing part stock dimensions, thus during cutting in either execution mode or simulation mode, the Operator can see the stock being cut down to the finished part in a Solid Graphic representation as opposed to single line Tool Path Graphics.



WINDNC Software:

DNC software (Direct Numerical Control) is a Windows based program that allows you contains the following capability:

- Upload programs
- Download programs
- Infinite Length program execution (Drip Feed mode)
- Offline parameter management
- Offline tool and zero offset table management
- Monitoring of CNC variables
- Complete part program editor with syntax checking
- You may take control of the CNC control from WinDNC (Keyboard control)