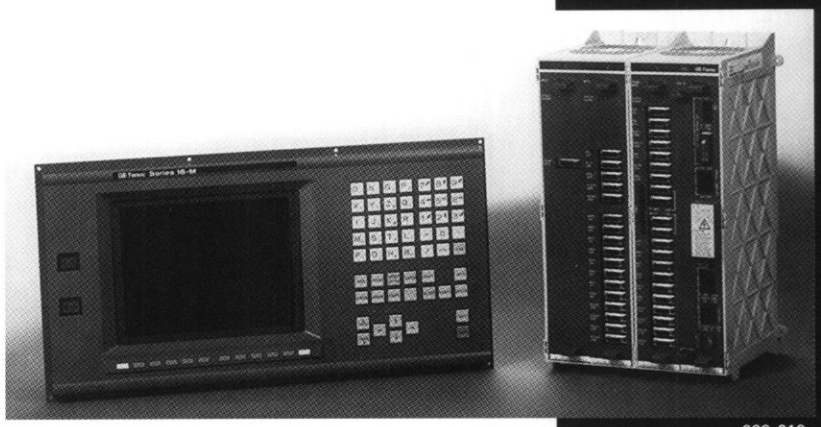
GE Fanuc Automation

Series 16/160 CNCs

The GE Fanuc Series 16/160 are popular members of a new generation of modular CNCs using leading-edge CNC technologies. They are high-end, high-performance CNCs for production machines.

The GE Fanuc Series 16/160 CNCs include:

- *A compact, 80486-based control unit with high density printed circuit boards mounted in a multi-slot rack*
- *Up to 8 axes of servo control. Each axis may be controlled up to 1μm (or 0.0001") increments (optionally 0.1μm, 0.00001") and traverse speeds up to 240m/min. Up to four spindles are supported. Four additional axes are available with the loader control option.*
- *The Series 160 CNCs offer a variety of open architecture configurations*
- *A variety of monochrome and color CRTs are available along with a variety of flat panel LCD displays*
- *Improved display screens for easier operation and maintenance*
- *An optional machine operator panel with sealed pushbuttons and customer definable labels*
- *Choice of built-in high speed PMCs to control machine functions using advanced Ladder Diagram programming or C language programming*
- *Convenient built-in PCMCIA card slot for backup storage of part programs, parameters, offsets, and ladder logic*



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The GE Fanuc Series 16 is an advanced CNC for general purpose and specialized machine tools in both manned and unmanned production applications.

Innovative new generation control technology employs very high density circuitry that minimizes the size and maximizes the reliability of the control unit. In addition, thinner cables are used to connect the control unit to the machine tool. The result is a control unit that is compact and takes up minimal space when installed in the power magnetics cabinet.

The Series 16 features an easy-to-understand display for improved operation and maintainability. On the servo and spindle setting screens, the operator can easily set parameters while viewing the actual motor speed displayed on a graph. Easy-to-use function keys assist the operator in selecting the correct screen, while a specially designed help key supplies instructions for the user to follow.

The optional conversational programming function allows part programs to be easily created by entering data using the conversational mode assisted by explanatory graphics and operation guidance.

An Innovative New Generation of Control Technology

Quality has been ensured by careful design and extensive testing

Machine precision can be remarkably improved through features such as stored pitch error compensation (which corrects for leadscrew pitch error and other mechanical positioning errors) and automatic corner override (which prevents over-cutting at corners).

Programming is simplified by features such as:

- ***Cutter Compensation: automatically generates the tool center path by offsetting the tool radius from the programmed path, avoiding the need for tedious calculations***
- ***Canned Cycles: automatically perform common machining operations with only one command***
- ***Background Editing: allows programming and machining to be performed simultaneously***

Max Controlled Axes	
1-path	8
2-path	(6+Cs) + (6+Cs)
Simultaneous Controlled Axes	
1-path	6
2-path	6+6
PMC Controlled Axes	
1-path	4
2-path	4+4
Loader Control Axes	4
Max Spindles	
1-path	3
2-path	2+2
Resolution (best available option)	0.1 µm
	0.00001 inch
	0.0001 deg
PMC (µS per step/max steps)	
RB3/RB4	1.0µS/24K
RC3/RC4	0.1µS/24K
PMC C Language	✓
Macro Executor	✓
Custom Macro	✓
C Language Executor	✓
Open System CNC	MMC-IV, HSSB
Part Program Storage (max)	5120m
Program Load/Store	RS232

MS-DOS® is a registered trademark of Microsoft Corporation.

Up to 5120m of built-in part program storage is available. Individual part programs and control parameters can be conveniently stored on MS-DOS® compatible 3.5" floppy disks using the GE Fanuc Handy File, a factory hardened portable file transfer and storage unit.

The Series 16 may be connected to a variety of communication networks, enabling unmanned operation for extended periods of time. Available automation functions include part program transmission, the reading and writing of CNC and PMC data, and remote operation.

Quality has been ensured by careful design and extensive testing of components and systems. Reliability has been proven by installations all over the world.

Conversational Programming	✓
Data Server	✓
PCMCIA Memory Card Interface	✓
CRT Display	
Ladder Monitoring	✓
Ladder Editing	✓
Servo /Spindle setup	✓
Alarm/Operation History	✓
Graphic Display	✓
Background Graphics	✓
Stored Pitch Error Comp.	✓
Linear/Circular Interpolation	✓
Helical Interpolation	✓
Involute Interpolation	✓
Cylindrical Interpolation	✓
Polar Coordinate Interpolation	✓
Polar Coordinate Command	✓
NURBS Interpolation	✓
Rigid Tapping	✓
Cutter/Tool Nose Compensation	✓
Canned Cycles	✓
Scaling	✓
Simple Synchronous	✓
Communications	
Remote Buffer	✓
DNC2	✓
OSI Ethernet	✓
High Precision Contouring Control	✓

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For the location of your nearest GE Fanuc sales representative or authorized distributor contact:

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