

MACHINE MATE®

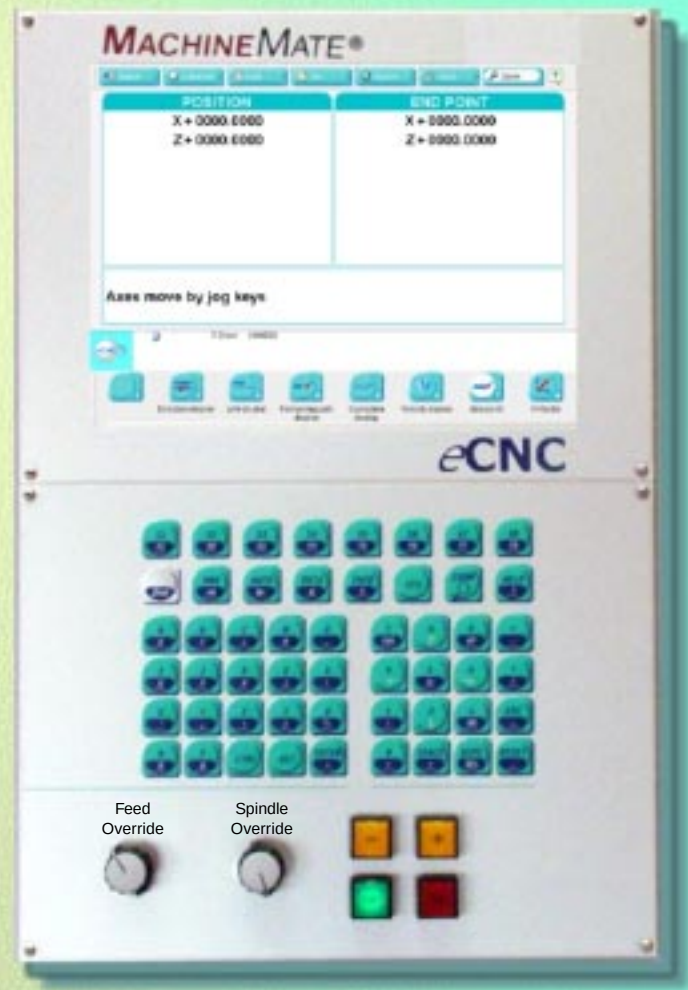
The Total Solution to PC Based CNC

Major Benefits

- Innovative High Performance Technology
- Fully Open Architecture CNC
- Fulfills all Technical Requirements from Standard to High Tech
- High Performance – Low Priced CNC

Outstanding Features

- Analog or SERCOS Drives Supported (Max. 32 Axes Analog /32 Axes SERCOS)
- IEC 1131 PLC Application Programming Tools
- Digital Discrete I/O (Max. 792 Inputs/ 528 Outputs)
- Browser Based Operator Interface



Open Architecture

The **MachineMate** CNC is an open architecture system. The PC-based approach enables a multitude of compatible options in both hardware and software. The operator interface is browser based (the first in the industry) that uses html frames and java applets; this design allows a designer with web page experience to develop CNC displays.

Pictured at top -
Two-piece eCNC Operator's Panel with optional switches is identical to and available with the L2 model.

Pictured at right -
MachineMate L2 IPC



The Integrator's Control (OEM or Retrofit)

The **MachineMate** CNC is a package for a more convenient integration. The CNC has two operator front panel configurations with full alphanumeric keypad and three display options. The remotely located industrial PC is in a CE-rated stainless steel enclosure for shop floor applications. The integrated soft PLC programming tool enables the control to handle the range from simple machines up to complex applications with numerous IO and auxiliary axes. The CNC comes with its own IO family but it also supports a number of fieldbus technologies. The CNC provides the interface to either/both analog drives or SERCOS digital drives.

Single Source Solutions

MachineMate Inc offers solutions for industrial automation from one state-of-the-art source. The CNC is a complete package (software and hardware).

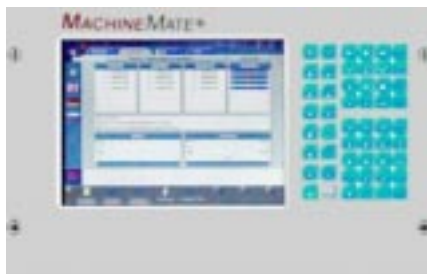
MachineMate Inc also provides accessories like a machine tool builder's panel, a handheld operator station with handwheel, cables, breakouts, servo motors and amplifiers, spindle motors and drives and other system components that expedite the integration.

Visit
www.machinemate.com
for additional
Benefits & Features

SUMMARY OF FEATURES

Features		4 Models		Options*
		L2 -S / L2-HS	eCNC-HS / eCNC-HSB	
Open Architecture	Hardware- single motherboard	Celeron	Pentium IV	
	Standard PC hardware	Hard drive, System Memory, Serial ports, Printer port, USB ports		
	Software	Single Operating System - Windows 2000		
Value Priced	High Features / Low Cost	High Performance CNC without the high price		
Screens	Browser Based Operator Screens	HTML frames and Java Applets allow for customization		
		Allows remote access to the CNC without an Internet provider		
Monitors	Color TFT or Mono CRT	TFT 10.4" or 12.1"	TFT 10.4" or 12.1"	CRT 9" - L2 only
	Color TFT Touch			12.1" through 20"
HMI	Full Keyboard with CNC features	Horizontal (19" wide) or Vertical/Slim line (11.5" wide)		
	Remote mounted	Keyboard and monitor can be mounted up to 33' from IPC		
Axes	Number of Axes	4 Axes Analog or 8 Axes SERCOS		Up to 32 Axes
	Gain (typical) ISO	Up to 7	Up to 15	
Performance	Block Throughput**	225 / 450 blocks/sec	450 / 1800 blocks/sec	
	Dynamic Block Buffer	50 Blocks		1000 Blocks max
	High Speed Accurate Machining	Self Adapting algorithm improves accuracy by 5 times		
I/O	Inputs / Outputs	48 in / 32 out	48 in / 32 out MIO***	792 in / 528 out max
	Analog	4 encoder / 4 D/A built in	4 encoder / 4 D/A / 4 A/D MIO	12 X L2 – 32 X eCNC
	SERCOS	8 axes	8 axes	8 X L2 – 32 X eCNC
	Fieldbus			Profibus DP DeviceNet Interbus S
	Communications	USB	USB Modem	Ethernet, USB Devices
Software	IEC 1131 PLC Languages	Ladder Diagram and Structured Text. Built in development and real time monitoring software. Built in DDE server		Function Block Diagram Instruction List Sequential Flow Chart
	Configuration	Lathe Mill		Laser, Water Jet, Grinder, Special
	Features	Included with all models		
		Parallel axes logic	2 ½ D Cutter Compensation	3 D Cutter Comp
		Reverse program execution	2 ½ D Adaptive ART****	3 D ART
		Logic Analyzer	2 ½ D Adaptive Look Ahead	Gantry Axes
		Helical Interpolation	Command Filter	Probing Routines
Easy Integration	Return to path	2 D Tool Path Graphics		8 CNC Stations
	Tool Management	Drilling / Turning cycles		Compile Cycles
	Machine Error Compensation	1000 points		Up to 16,000 points
Robust CNC System	Transformations			3, 4, or 5 Axes
	Built in Functionality	Function Keys or Optional Touch screen reduces application programming		
System	Built in Machine Routines	Machine Reference, Jogging, Handwheel, NC Program execution are built in		
	System Monitors	Temperatures, Voltages and Watchdog timer assures safe system operations		
Environmentally Protected		Stainless steel enclosure, IP 65 HMI and CE rated		

* Some are future enhancements or require a faster processor. **Block Throughput is measured with 8-axis simultaneous motion. ***MIO is MachineMate's Modular IO that allows for remote mounting up to 100 ft. ****ART is Advanced Regulation Technology a self adjusting automatic fine tuning of the relevant control parameters to increase accuracy and speed of the machine. Specifications subject to change without notice. Consult your sales representative for a complete specifications list. The right to modifications for technical improvements is reserved. All trademarks are the property of their respective owners.



Above - Horizontal display used for both the L2 and eCNC model

Below - eCNC IPC



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