

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

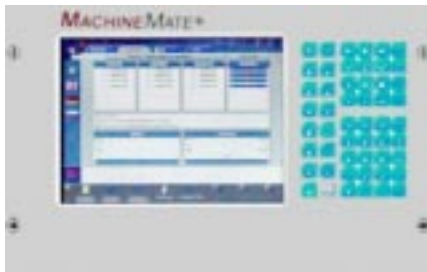
MachineMate Inc offers solutions for industrial automation from one state-of-the-art source. The CNC is a complete package (software and hardware). **MachineMate** Inc also provides accessories like a machine tool builder's panel, a handheld operator station with handwheel, cables, breakouts, servo motors 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	
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		
Transformations				3, 4, or 5 Axes	
Easy Integration	Built in Functionality	Function Keys or Optional Touch screen reduces application programming			
	Built in Machine Routines	Machine Reference, Jogging, Handwheel, NC Program execution are built in			
Robust CNC System	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



MachineMate, Inc.

Fond du Lac, WI 54935
 Phone: 920-907-0001 • Fax: 920-907-0181
 E-mail: info@machinemate.com
 www.machinemate.com