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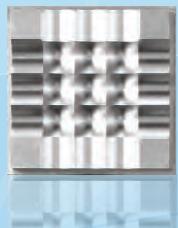
CNCmakers Limited

● C580M

● C1000M

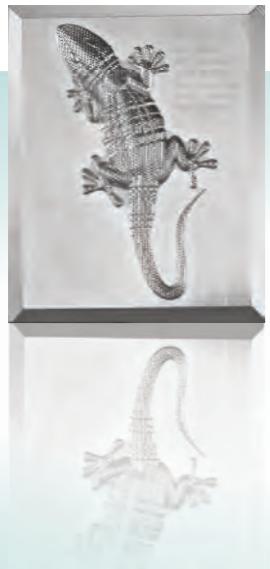
● C1000M-V

Milling CNC Controller



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Professional quality trustworthy

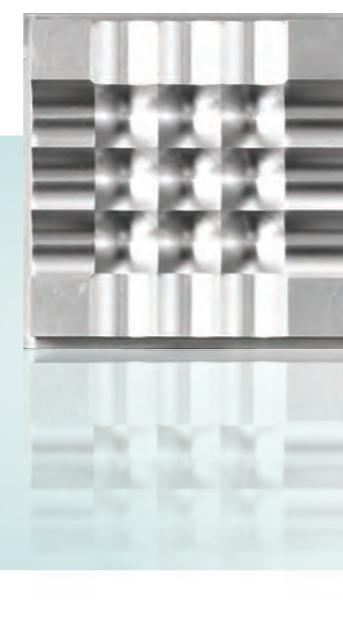
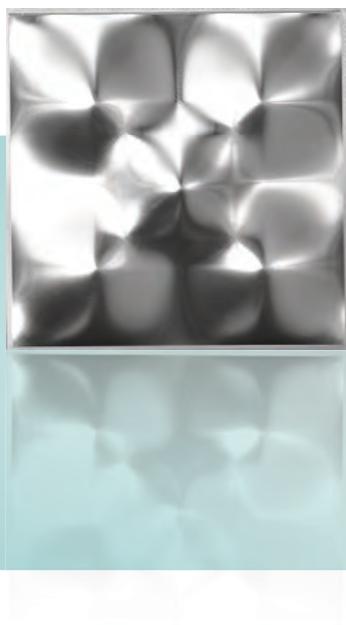
Product Introduction

- 5 feeding axes, 4 axes simultaneously and 2 analog spindle for C1000M & C1000M-V
- 1ms interpolation cycle, 0.1um control precision
- 2 way 0V~10V analog output, supports 2 spindles(C580 has not)
- Linear, exponential, and S-shaped acceleration and deceleration mode can be chosen
- Multiple PLC, current PLC can be switched
- PLC on-line display, monitoring and real-time signal tracking(C580 has not)
- Statement-style macro programming, macro call with parameters
- Rigid tapping or tapping can be selected by parameters
- Rotation, scaling, polar coordinate, fixed cycle, slotting composite circulation
- Supports alarm and operation history, easy to management
- Multiple password protection levels
- 36 Input/36 Output for C1000M, 16/16 for C580M
- USB supports file operation and directly processing, system setting and software upgrading, RS232 is available too.



Specification

- Control Axes: 5 axes(X, Y, Z, 4th, 5th) for C1000M & C1000M-V
4 axes simultaneously
- Control Axes: 3 axes (X, Y, Z) for C580M
3 axes simultaneously
- Position Command Range:
Metric Input (G21) : -9999.9999mm~9999.9999mm
Minimum input: 0.0001mm
Imperial Input (G20) : -999.9999inch~999.9999inch
Minimum input: 0.0001inch
- Electronic Gear:
Command Clock Multiplier Factor 1~65536, Division Factor 1~65536
- Rapid Traverse Speed:
Max. 60m/min
- Rapid Override:
F0、25%、50%、100% four grade real-time switch
- Cutting Feed rate:
Max. 15m/min (G94) 或 500.00mm/r (G95)
- Feed Rate:
0~150% sixteen grade real-time switch
- Manual Feed Rate:
0~150% sixteen grade real-time switch
- MPG Feed Rate:
0.001mm、0.01mm、0.1mm、1mm four grades
- Single Step Feed Rate:
0.001mm、0.01mm、0.1mm、1mm four grades
- Interpolation Method:
Linear、Circular、Helical and Rigid Tapping
- Auto Chamfering



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Specification



- Cutting Feeding Acceleration and Deceleration:
Linear type, S type or Index type
- Rapid Traverse Acceleration and Deceleration:
Linear type, S type or Index type
- Max. 15 NC block pre-read, ensure smooth and fast interpolation
for small segments, suitable for parts machining and mold making.
- Starting, finishing speed & time of acceleration and deceleration set by parameter
- Manual and MPG are control by afterward acceleration and deceleration
MPG supports immediate stop or full run mode
- Rapid positioning supports straight line or fold line



- Tool length compensation
- Tool nose radius compensation (C type)

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Specification



- Two way 0V~10V analog output and double spindle control for C1000M
- Spindle encoder:
lines can be set between (100 p/r~5000p/r)
- Gear Ratio between encoder and spindle:
(1~255) : (1~255)
- Spindle Override:
50%~120% totally 8 grades real-time switch
- Spindle constant surface speed control
- Tapping circle, rigid tapping



- Thread Error Compensation:
Compensation Points, distance and reference point can be set
- Backlash Compensation:
Fix frequency way, or Acceleration and Deceleration way



Creative Excellence

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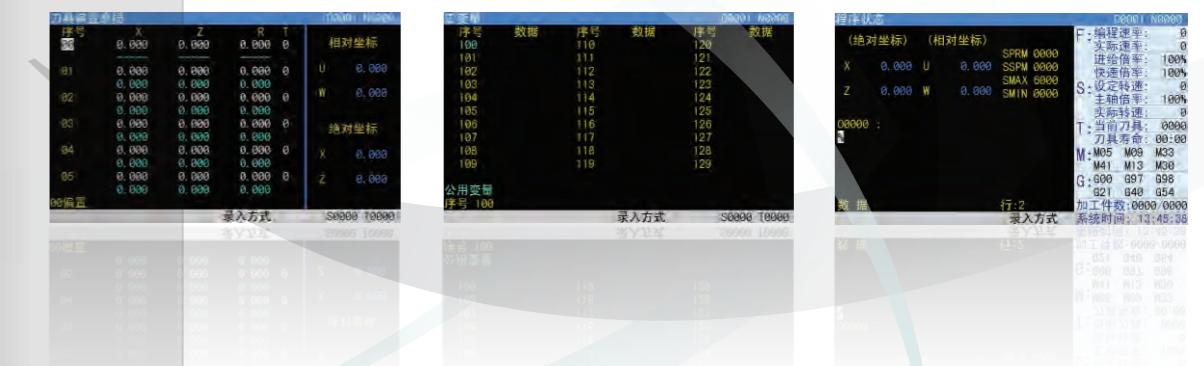
Specification



- PLC program in two levels, maximum 4700 steps, 1.5 μ s/step; the refresh cycle of the 1st level program: 8ms
- Support PLC warning and PLC alarm
- Multiple PLC program (Max.20) , the current running PLC can be selected
- Command amount: 45 (Including basic command 10, functional command 35)
- I/O unit input/output: 36/36 for C1000M & C1000M-V, 16/16 for C580M



- 7 inch wide screen LCD, resolution: 800X480
- The Chinese and English interface can be selected by parameters
- Two dimension cutter path display
- Real-time clock



Specification



- Operation mode: Edit, Auto, MDI, Mechanical zero return, MPG/Single step, Manual, Program zero return, DNC
- Operation authority of multiple-level management
- Alarm record
- Program capacity: 56MB, max. 400 programs (including subprograms & macros)
- Edit function: program/ block/ characters search, edit, delete, copy and paste
- Program format: ISO code, support macro command programming in sentence type, programming of relative, absolute and hybrid coordinates
- Program calling:macro program with parameter, 4 layers subprogram nesting

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Specification



- RS232: Programs and parameters transmission in two ways
supports PLC program and CNC software upgrading
- USB: File operation and file directly processing in flash disk:
supports PLC program and CNC software upgrading



- Emergency stop
- Hardware travel limit
- Software travel limit
- Data restoring and recovering



First-class quality
First-class service



PLC instruction list

RD	Read normally open contact	CTR	Binary counter
RD.NOT	Read normally close contact	DEC	Binary decoding
WRT	Output coil	COD	Binary code conversion
WRT.NOT	Output coil.NOT	COM	Public-wire control
AND	Normally open contact in series	COME	End of public-wire control
AND.NOT	Normally close contact	ROT	Binary rotary control
OR	Normally open contact in parallel	SFT	Shift register
OR.NOT	Normally close contact in parallel	DIFU	Rising edge detection
OR.STK	Circuit block in parallel	DIFD	Falling edge detection
AND.STK	Circuit block in series	COMP	Binary comparison
END1	End of the first sequential program	COIN	Consistency comparison
END2	End of the second sequential program	MOVN	Data transmission
CALL	Subprogram call	MOVB	Transmission of a byte
CALLU	Unconditional Subprogram call	MOVW	Transmission of 2 bytes
SP	Subprogram	XMOV	Data transfer of binary index
SPE	End of subprogram	DSCH	Binary data search
SET	Set	ADD	Binary adder
RST	Reset	SUB	Binary subtraction
JMPB	Label to jump	ANDF	Logic and
LBL	Label	ORF	Logic or
TMR	Timer	NOT	Logic not
TMRB	Fixed timer	EOR	Not or
TMRC	Any address timer		

Allocation Software

Com software and PLC ladder diagram editing software can be used to edit ladder diagram part program, parameter, thread error compensation data, tool compensation data in PC, upload and download files and data between PC and CNC, The softwares runs in WIN98/2000/XP/ME

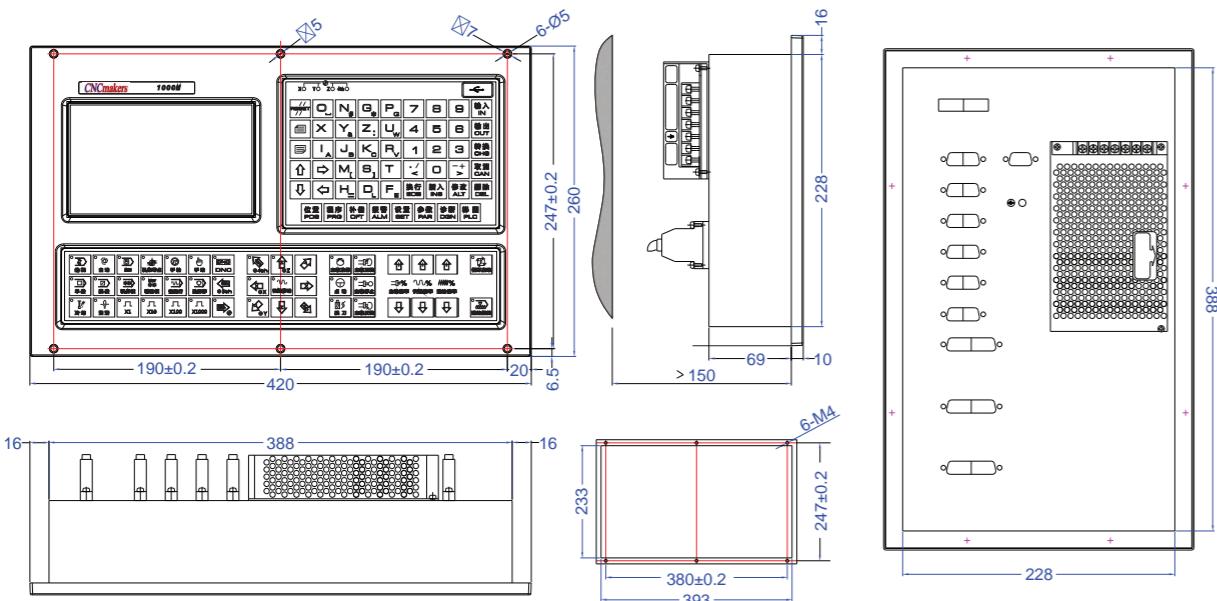
G code table

G00	Rapid positioning	G51	Scaling
G01	Linear interpolation	G53	Select machine coordinate system
G02	CW arc interpolation	G54	Work piece coordinate system 1
G03	CCW arc interpolation	G55	Work piece coordinate system 2
G04	Dwell, exact stop	G56	Work piece coordinate system 3
G12	Storage stroke detection on	G57	Work piece coordinate system 4
G13	Storage stroke detection off	G58	Work piece coordinate system 5
G15	Polar coordinate instruction cancel	G59	Work piece coordinate system 6
G16	Polar coordinate instruction	G54.1~G54.50	Select additional workpiece coordinate system
G17	XY Plane select code	G60	Unidirectional position
G18	ZX Plane select code	G61	Exact stop mode
G19	YZ Plane select code	G62	Automatic corner override
G20	Select unit in inch system	G63	Tapping mode
G21	Select unit in metric system	G64	Cutting mode
G22	CCW inner circular groove rough milling	G65	Macro command
G23	CW inner circular groove rough milling	G68	Coordinate system rotation
G24	CCW fine milling within a circle	G69	Coordinate system rotation cancel
G25	CW fine milling within a circle	G73	Deep hole Hi-speed processing cycle
G26	CCW outer circle fine milling	G74	Laevorotatory tapping cycle
G27	Reference point return check	G76	Fine boring cycle
G28	Retun to reference point	G80	Cancel fixed cycle
G29	Return from reference point	G81	Drilling in cycle(dot drilling cycle)
G30	Retune to 2,3,4 ref. point	G82	Drilling in cycle(boring stage hole cycle)
G31	Jumping function	G83	Deep hole drilling in cycle
G32	CW outer circle fine milling circle	G84	Tapping in cycle
G33	CCW rectangular groove rough milling	G85	Boring hole in cycle
G34	CW rectangular groove rough milling	G86	Drilling hole in cycle
G35	CCW inner rectangular groove fine milling cycle	G87	Back boring cycle
G36	CW inner rectangular groove fine milling cycle	G88	Boring hole in cycle
G37	CCW rectangle outside fine milling cycle	G89	Boring hole in cycle
G38	CW rectangle outside fine milling cycle	G90	Absolute value programming
G39	Corner offset circular interpolation	G91	Increment value programming
G40	Cancel tool radius compensation	G92	Set coordinate system
G41	Tool radius left compensation	G94	Feeding/min
G42	Tool radius right compensation	G95	Feeding/rev
G43	Tool length positive compensation	G96	Constant surface speed control(cutting spped)
G44	Tool length negative compensation	G97	Constant surface speed control cancel(cutting spped)
G49	Cancel tool length compensation	G98	Return to initialization plane During fixed cycle
G50	Cancel scaling	G99	Return to point R plane During fixed cycle

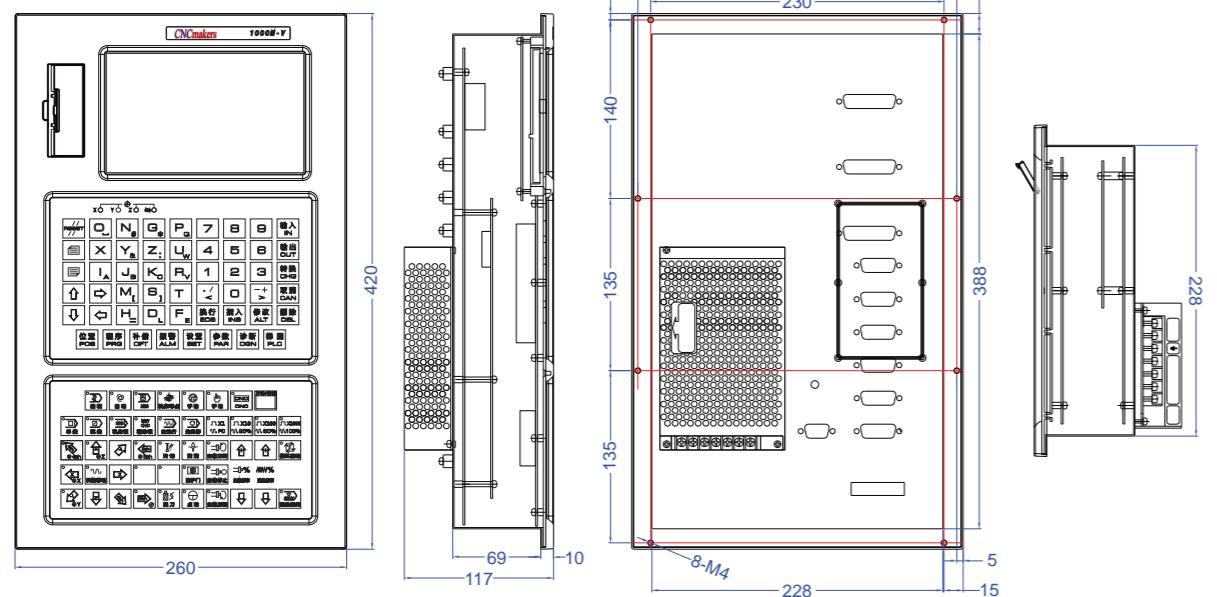


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Dimension

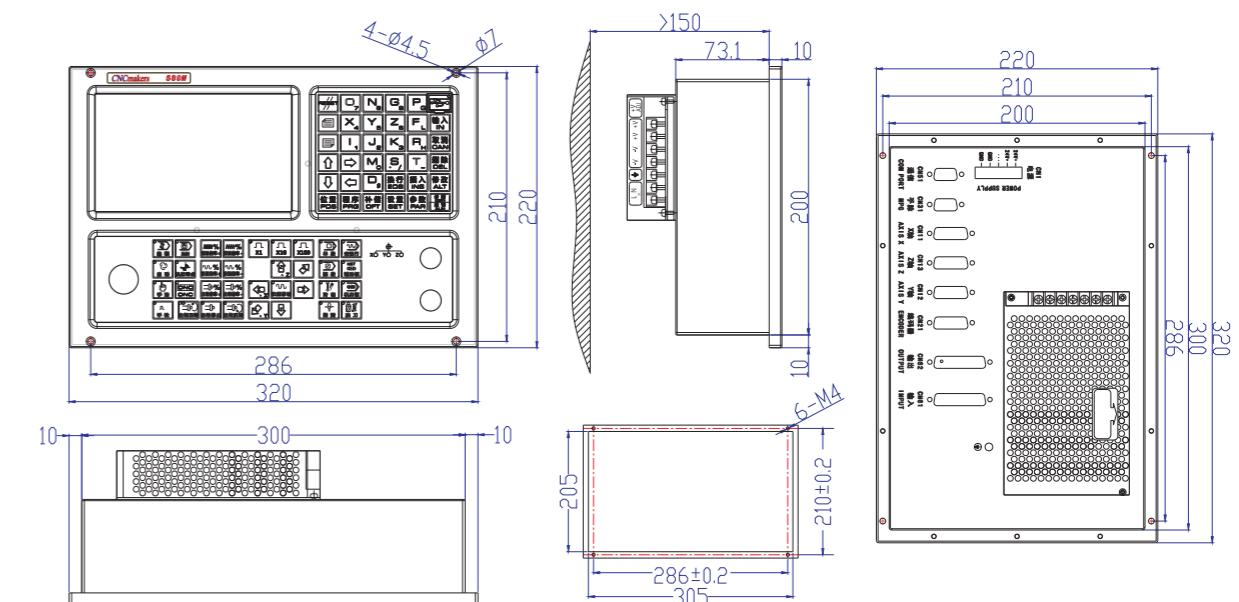


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Dimension



Additional panel

