

GLH SERIES

Linear rail type horizontal machining center

500



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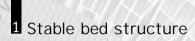
The GLH 500 is both stable and efficient, and can maintain stable processing performance in batch processing and long -term processing. 40# taper rich variety of spindles, tool library, automation forms, etc., for users to provide a convenient choice of diverse processing needs.



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The 3-point support structure makes the bed have good static and dynamic rigidity. Compared with the traditional bed design, it improves the convenience of machine tool installation.



2 High Performance

The rich types of spindles provide convenient choices for users' diversified processing needs.



3 Ease of operation

The user-friendly operation panel improves the convenience of operation through the design of common buttons.





Stable bed structure

1 Stable bed structure

X-axis segment differential design, solid support column, so that the bed has a higher static and dynamic rigidity. The 3-point support structure is adopted to improve the convenience of equipment installation and shorten the installation time.

2 Stable and fast axial feed structure

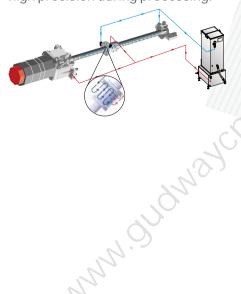
High-speed servo motors are installed on all axes for high-speed machining in a stable bed structure.

Acceleration 0.93/0.85/0.85 G

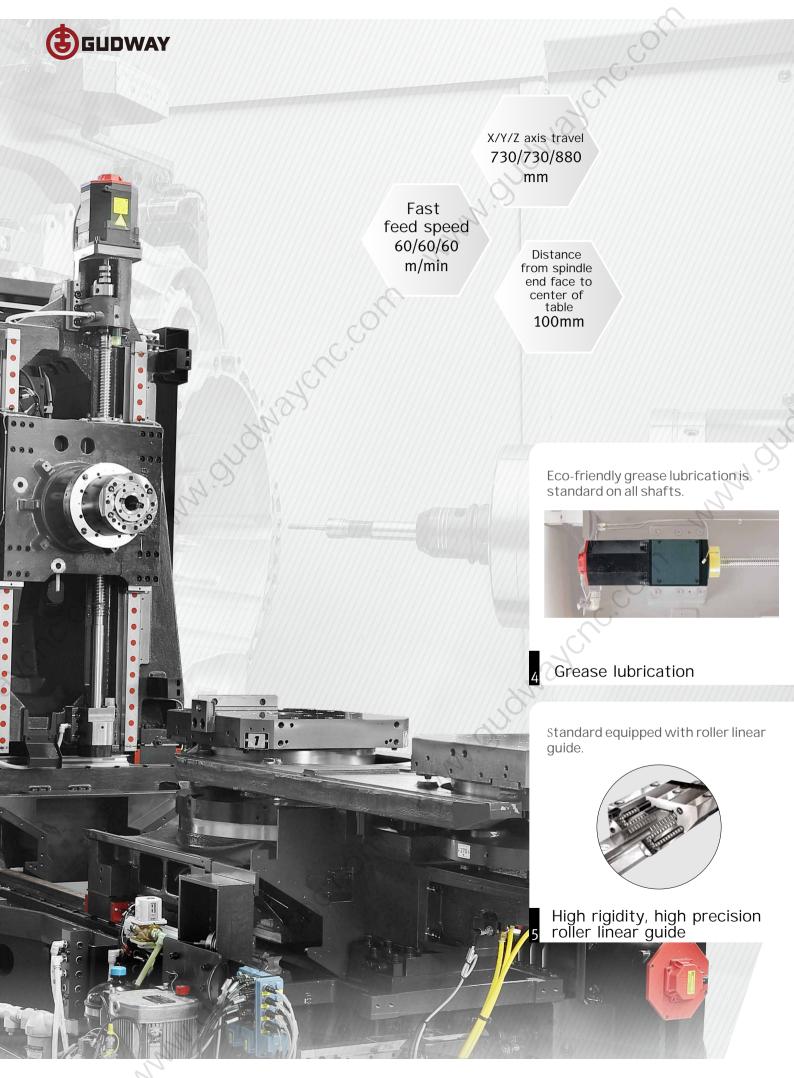
Fastfeed speed: 60 m/min
Feed speed: 0~60 m/min

Ball screw cooling system

In order to avoid the lead screw deformation due to heat and affect the processing accuracy, the standard hollow oil cooling lead screw to achieve high precision during processing.









A wide variety of spindles provides convenient choices for diverse processing needs

1 High speed, high performance spindle

Direct drive motorized spindle is used to achieve high speed machining accuracy and surface quality. The standard spindle thermal displacement compensation function reduces the impact of thermal displacement on machining accuracy.

Various spindle configurations

Various spindle configurations are available to meet the diverse processing needs of users.

General processing spindle: 15000 min-1

Spindle speed min ⁻¹		15000		
Spindle power (S325%/ continuo	30/18.5			
Maximum torque N⋅m		230		

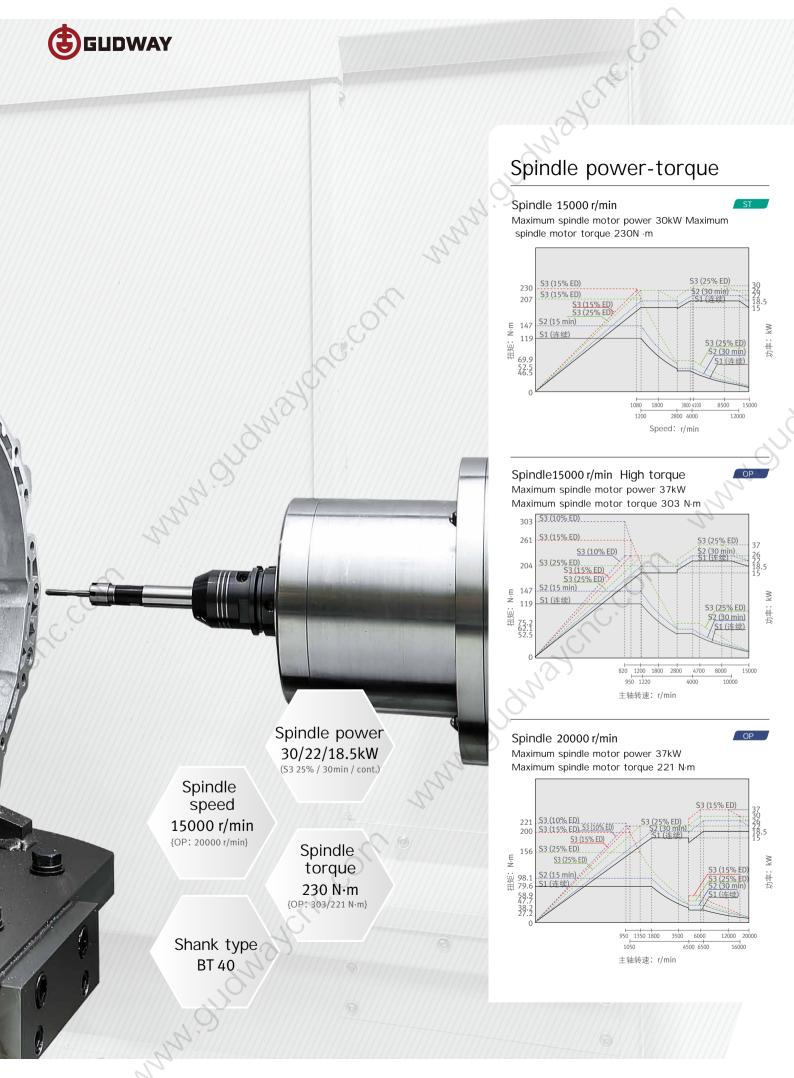
Spindle for high torque machining: 15000 min⁻¹

Max speed	min ⁻¹	15000
Spindle power (\$325%/ continuous)	kW	37/22
Maximum Torque	N∙m	303

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Colodia	£~~	h:~h	00000	machinina:	20000
	1()[T 11(1F 1	SHEEL	machining	ZOOOO min

<u> </u>		
Maximum spindle speed	min ⁻¹	20000
Spindle power (S315%/ continuous)	kW	37/18.5
Maximum Torque	N∙m	221







High precision rotary table

Rotary table with high precision positioning

1° indexing table s

Min indexing: Angle 1°

Table indexing time (90°): 1.4 second

Max speed: 40 min⁻¹

0.001° index direct drive motor table Optional DDM (direct drive motor) high-speed rotary table, suitable for high-speed indexing, high -precision positioning when the processing.

Minimum indexing Angle 0.001° Table indexing time (90°): 0.9 second

Maximum speed: 100 min⁻¹

High rigidity rotary table

TABEL SIZE: 500X500 mm

: **Ф800 X1000** mm MAX SIZE

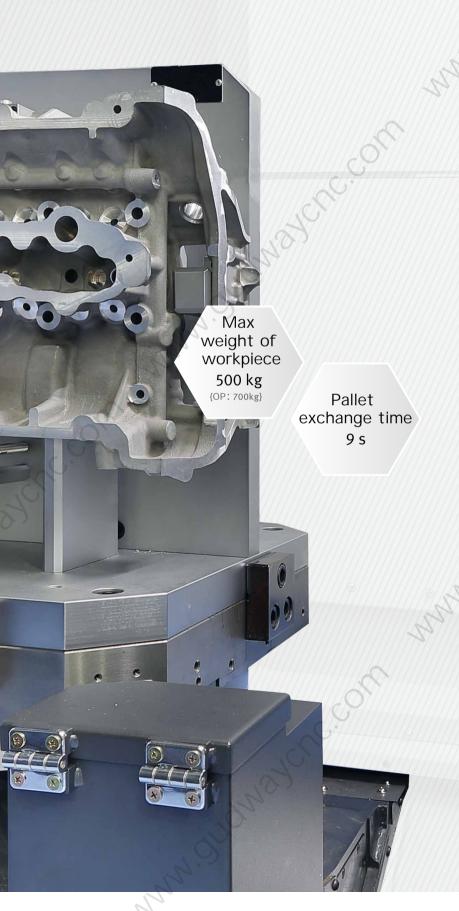
MAX WEIGHT: 500 kg

700 kg OP





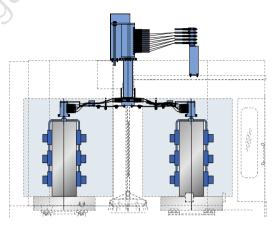




A Type Upper supply system

Hydraulic pressure is supplied to the clamps of each pallet through hydraulic pipes above the pallet exchange device

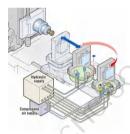
Maximum number of interfaces: 8 X 8



B Type Lower supply mode

Hydraulic pressure is supplied via sealed couplers via a loop at the bottom of the tray

Maximum number of interfaces: 4 X 4





Hydraulic clamp interface open

select hydraulic or pneumatic fixtures according to user requirements.

Hydraulic/pneumatic fixture sleeve

- A/B wire: 2, 4, 6, 8 (including solenoid valve)
- P/T wire: 2、4、6、8 (Excluding solenoid valve)

Hydraulic motor for fixed fixture

- •2.2 kW / 7MPa
- •3.7 kW / 15MPa
- •5.5 kW / 21MPa





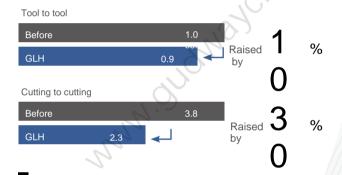




Multi-type tool library and servo ATC

1 Servo drive ATC (Automatic Tool changer)

The high speed servo ATC can effectively shorten the noncutting time and improve the production efficiency.

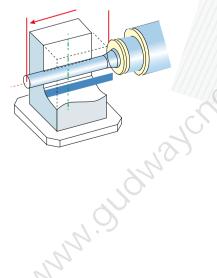


2 A wide range of tools

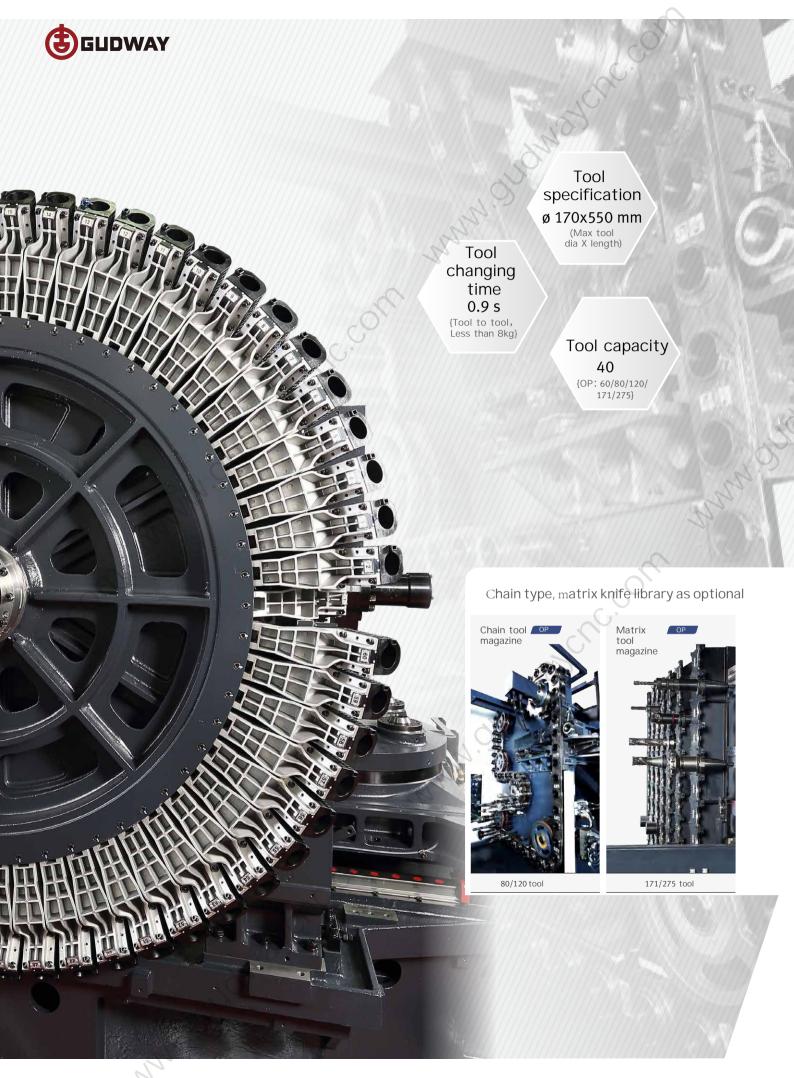
High-speed ring knife library with 40 knives as standard. Cha in type, matrix tool library as an option, and provide a variety of capacity specifications, the maximum optional capacity of 275, easy to respond to the user's diversified processing, ma nagement needs.

Tool for deep hole machining

The longest tool reaches 550 mm, exceeding the size of the table. Deep hole boring can be performed.









Pallet automation system

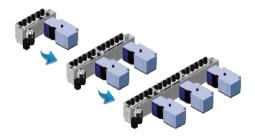
1 Linear Pallet System [LPSII]

The LPSII linear pallet system is designed and produced by Dean Machine Tools to provide us ers with a convenient automation system that of fers excellent flexibility, including system expan sion and layout changes.



- Up to 7 devices

Number of trays: up to 72 ea
Workpiece diameter: 800 mm
Maximum weight: 500 kg
Standard size: 7824 x 2400 mm



Features

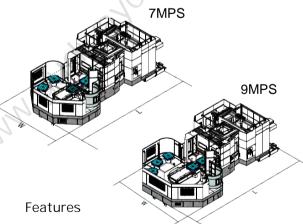
- Easy to implement system expansion station equipment with modular storage racks up to 7 machines and 72 pallets of efficient workpiece loading space
- Automated operation control via PC-based OS

2 Multi-pallet Automation System (MPS)

Compared to standard two-pallet machines, M PS uses the job scheduling function to enable I ong unmanned operation and flexible production of multiple workpieces. The system can be easily installed and disassembled on site.



Number of trays: 7&9 eaWorkpiece diameter: 800 mmMaximum weight: 500 kg

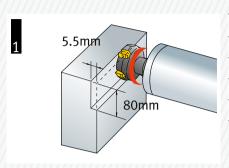


- Long time unmanned operation
- Bracket type servo drive, high reliability
- Simple installation and easy maintenance
- Convenient for field modification

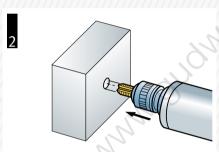


Machining

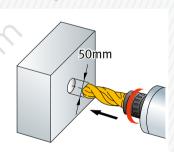
(Motor power: 30/18.5 kW)



1/3	
Tool	ø80 Face milling cutter ø125 (mm7Z) Face milling cutter, Depth 5.5(mm8Z)
Cutting per minute	Cutting per minute 912 cm³/min
Spindle speed	500 r/min
Feedrate	2592 mm/min



Carbon Steel Tapping (SM45C)		
Tool	M36×4	
Spindle speed	220 r/min	
Feedrate	880 mm/min	



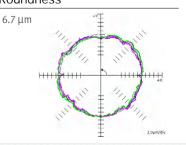
Carbon steel drilling (SM45C)	
Tool	D50 U型钻头(2Z)
Cutting per minute	526 cm³/min
Spindle speed	1080 r/min
Feedrate	260 mm/min



Tolerance

Accuracy of positioning $6.2/4.1/5.6\,\mu m$ Repositioning resolution $4.5/2.0/4.8\,\mu m$

Roundness





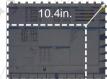
Convenience

Simple panel

Humanized design of the operation panel, optional custom function swit ch and other functions, to bring convenience to the operator.



10.4in.screen



Lock/unlock buttons, counters, timers and other special optional buttons can be pressed by the mounting fixture

Partition button to prevent incorrect operation

PCMCIA card

PCMCIA card can upload and download NC program, NC parameters, tool information and ladder program, in addition to support DNC operation.

USB port-

Allows the use of USB drive to uploa d/download NC so ftware programs, NC parameters, to ol information and ladder programs, but does not supp ort DNC operation.



Rotary operating panel

The operation panel can be rotated 90° a nd displays machine alarm information a nd controller errors, which is more convenient for the operator.



Portable MPG

The portable MPG makes it easier for users to set up workpieces.





Lubrication system

Standard grease lubrication systems do not require skimmers and reduce lubrication costs by approximately 65% compared to oil lubrication.

Annual maintenance cost

Max **65%** ↓



Chip-conveyor





Measuring system



Auto tool breakage detection device I (BK 9)



Auto tool breakage detection device II (OMRON)



Auto tool (TS 27R) OP measuring device

Chip handling system



Flush coolant



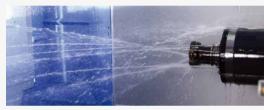
Coolant spray gun on top of spindle



Spray OP coolant



Cooling OP gun



Mainshaft flush coolant



Spindle OP center discharge



MQLsystem Oil mist



Environmental protection device

OP



Oil ST skimmer



Oil mist collector





EOP function

The Easy Operation Package (EOP) provides users with tool monitoring, management and help, operation and tray library.











Tool Manager I

Tool magazine control Display tool status Fastems tool add/remove function

Tool Manager II

Balluff tool ID function

Tool magazine control Tool life management Tool life prediction Tool magazine status control

Tool load monitor

Tool damage detection Anomaly detection during operation • APC manual No load blank cut detection

ATC/APC panel

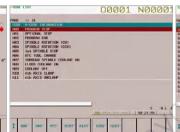
• ATC manual

SOME SOLVER

Help









Simple NC parameters

Main parameter help Display parameter Settings

Calculator

Calculator capabilities 4 arithmetic operations Support for math functions

M code list

M code list

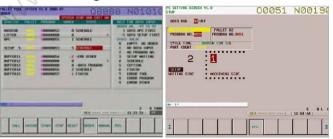
G code list

G code list

Operation



Pallet storage



Running speed

Measure various machine running speed Three shift operations are supported Calculate&store operating speed 30 days NC Software Optional Displays data for a specified date

PMC switch

Operation Panel function (optional) Alternate switching switch

Multi-tray station

Control MPS operation Displays MPS PMG information Set processing progress Automatic call function

APC setting

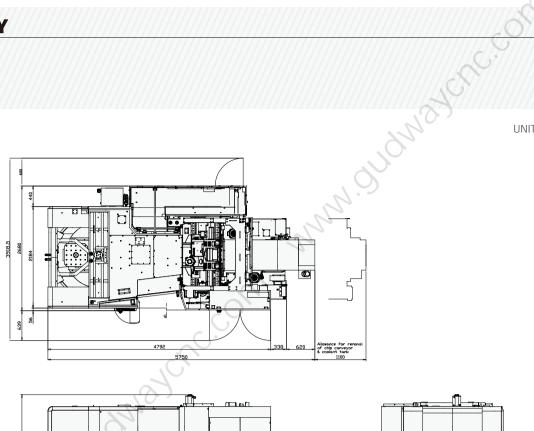
2 Tray APC operation screen

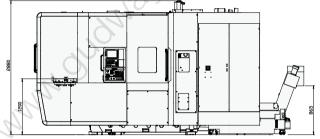
Manual operation and coordinate setting functions



Size

GLH500 UNIT: mm





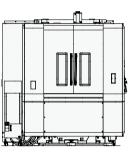
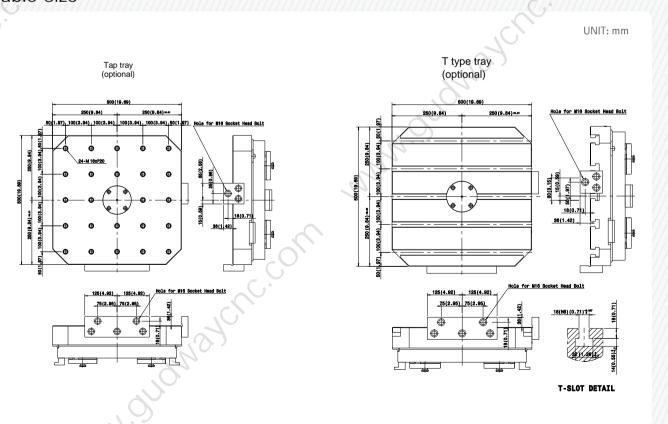


Table size





Specification



Specification		Item	UNIT GLH 500	
GLH 500		Feed distance (X/Y/Z)	mm	730 / 730 / 880
	Machining_	Distance from spindle front to bench c	enter mm	100 - 980
		Distance from spindle center to table s	urface mm	80 - 810
	- Pallet	Pallet type		24-M16×P2.0
		Indexing Angle	deg	1 {0.001}
1		Maximum load	kg	500 {700}
		Max workpiece size	mm	800×1000
	_	Tray size	mm	500×500
		Maximum spindle speed	r/min	15000 {20000}
	Spindle	Taper specification		ISO #40, 7/24 TAPER
		Maximum Torque	N∙m	230 {303/221}
	F. J. J.	Fast moving speed (X/Y/Z)	m/min	60 / 60 / 60
	Feedrate -	Cutting feed speed	mm/min	60000
	Auto pallet - exchange device -	Pallet quantity	ea.	2
		Pallet switching system		Rotary shuttles
		Pallet exchange time	S	9
	Auto tool changing -	Shank type		MAS403 BT 40
		Tool magazine capacity	ea	40 { 60 / 80 / 120 / 171 / 275 }
		Maximum tool diameter	mm	75 (CONTINOUS.), 170 (ADJACENT POTS EMPTY)
12		Maximum tool length	mm	550
a a		Maximum tool weight	kg	12
		Tool change time (tool-tool, less t	han 8kg) s	0.9
	Motor	Spindle motor power	kW	30 / 22 / 18.5
	Power -	Power supplies	kVA	80 {90}
		Air pressure	MPa	0.54
	Box -	Cooling tank capacity	L	570
		Lubricating oil pot capacity	L	2
	Machine size	Machine height	mm	2880
		Machine area (L X W)	mm	5750×2680
		Machine weight	kg	11500

• {}optional

Standard

anno duc

Oil skimmer Work light Condition light Spindle head cooling system Coolant tank Install parts Standard FANUCiPlus

Optional

5th axis preparation

Linear grating ruler Auto workpiece measuring device Auto power cut-off device Auto tool length measuring device Water gun

Chip extractor/chip truck Test rod Spray cooling Hydraulic clamp interface

Spindle center water



NC Specification

aft control umber of control axes 4(X,Y,Z,B) Control the number of axes simultaneously Positioning (G00)/ Linear Interpolation (G01):4 axes Arc interpolation (G02,G03):2 axes Control shaft removed Reverse gap compensation nergency stop/overdrive	- USB port - Imperial/metric conversion G20/G21 - Mark skip - Maximum instruction value - Maximum instruction value - Maximum instruction value - ±99999.999mm(±9999.9999 inch) - Number of programs that can be stored - Select program segment Skip
Positioning (G00)/ Linear Interpolation (G01):4 axes Arc interpolation (G02,G03):2 axes Control shaft removed Reverse gap compensation nergency stop/overdrive	· Maximum instruction value ±99999.999mm(±9999.9999 inch) .Number of programs that can be stored 1000 ea
Arc interpolation (G02,G03):2 axes Control shaft removed Reverse gap compensation nergency stop/overdrive	.Number of programs that can be stored 1000 ea
Control shaft removed Reverse gap compensation nergency stop/overdrive	
Reverse gap compensation nergency stop/overdrive	I. Select program segment Skip
nergency stop/overdrive	· Choose to stop MO1
	Part program storage length 2m
RV controls HRV2	- Program protection
ocation tracking	- Program number 04 digits
Increment system 0.001/0.0001 mm/inch The minimum input increment is 0.001/0.0001 mm/inch	- Sequence number N ⁵ digi
ncremental system C ISXC	Program stop/end M00.M02.M3C
Machine lock all axes /Z axes	- Programmable data entry Type tool compensation and workpiece
Each shaft	Rigid tapping G84,G74 - Subroutine call 10 layers of nesting
Store trip Check 1	- Paper tape code EIA RS422/IS0840
	- Thread cutting - Local/machine coordinate system G52/G53
absolute pulse encoder	- Program restart
erpolation and feed function	- The number of workpiece coordinate system groups is G54.1 P1-48 (48 pairs
21132	added G54.1 P1-46 (46 pairs
= return = Second reference point 330	- workpiece coordinate system G54-G59
strict 3/4 reference point	
	Other functions (operation, setting and display, etc.) · Alarm display
-R L Open warp	· Report history shows
	Automatic corner multiplier Clock display
ed pause G04	· Start running/feed hold
Sure guide mode G09,G61	PMC alarm information display
	Empty operation Actual speed display
e-read thunder fill before bell type acceleration and deceleration	· Embedded Ethernet
Smooth reverse clearance compensation	Memory card-based DNC operation G62
Automatic corner multiplier G62	External data entry Multilingual display
Automatic corner deceleration	·Cs profile control
	-RS232 interface (for 2ch) - Polar coordinates command
near interpolation 0]	Programmable mirror
Manual feed per turn	· Schema data entry
Magnification cancelled AMA8IM4G	FS10/11 T format G15,G16 Graphic display G50.1, G51.1
land-controlled handwheel interrupted	Help function
	_· High-speed skip function · Load meter display
Return to reference point G27,G28,G29	· Display device
	_ Advance control 10.4 "Color LCD/MDI G08
ICCI II 200BLOCK	Memory card interface G08 Operation function
Selection of processing conditions	· Operation resume display
	_· Arbitrary chamfer/corner R Programmable data entry
lano smoothing	Run time and part count display G50,G51
	Scaling G68,G69 Coordinate system rotation Sequence number/program
code function M3 digits	_· Coordinate system rotation Sequence number/program _· Retrieval function number
pindle orientation	Self-diagnostic function
	_· Servo setting screen _· Single step J G60
Spindle output switch	- Unidirectional positioning
	Storage trip Check 2
Spindle speed multiplier 50-1500m	Ethernet features Automatic data backup
ol function	Dynamic graphics display (10.4"Color TFTLCD)
	Machining quality level adjustment function 5 axes in total EOP (Easy Handling Package)
lumber of tool offset 400 pairs	Tool load monitoring function
	_Option Specifications
nol length compensation	- Attach the number of control axes - Hand control hand cycle back
ooi lengtri measurement	- Data server
on length compensation 18 digits	_ · Operation Guide i 1000 ea _ · Operation lead oi G54.1P1X300(300 pairs)
ool compensation G45XG48	· Word carving G68.2.Guidance screens is not
	-CF card (2GB) on 8.4"LCDPROFIBUS-DP G68.20
solute/incremental programming G90/G91	PROFIBUS-DP G68.20 -PROFINET
rnamic marker set	-CC-LINK
	Number of login programs G72.1, G72.2 The number of workpiece coordinate system
ogramming arc interpolation	groups is added TWP c. opmand on
Jser macros	· Incline plane indexing instruction guidan ce wind w
	Incline plane indexing instruction function
Multiple jumps	Incline plane indexing instruction function
Macro actuators	- Multi-spindle control
Jser software package 6M	· Data Server (1GB PCMCIA card)
extension program editor	· Fast Ethernet board
	osition switch bsolute pulse encoder erpolation and feed function articit 3/4 reference point rc interpolation G02,G03 Janointerpolating R L Open warp man in waste is always compensated Jova Cordinate interpolation Josephan G04,G61 Sure guide mode Jow College G09,G61 Tow UNIT Sorew interpolation Jow College G09,G61 Tow UNIT Sorew interpolation G09,G61 Tow UNIT Sorew interpolation Modh reverse clearance compensation Gomethic Fill before bell type acceleration and deceleration mooth reverse clearance compensation Gomethic G09, College Jow Colle





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ITEM	UNIT	GLH 500
Max spindle speed	r/min	15000 {20000}
Max spindle power	kW	30 / 22 / 18.5
Size of Rocking Plate	mm	500 x 500
Tool taper	13	ISO #40
Travel (X/Y/Z)	mm	730 / 730 / 880
Tool magazine capacity	ea	40 {60/80/120/171/275}

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