

# BF-T6

HIGH PRECISION MACHINERY MANUFACTURER



## QUALITY COMES FROM CONFIGURATION, SERVICE COMES FROM HEART

HONGKONG BAOFENG PRECISION MACHINERY CO.,LTD.  
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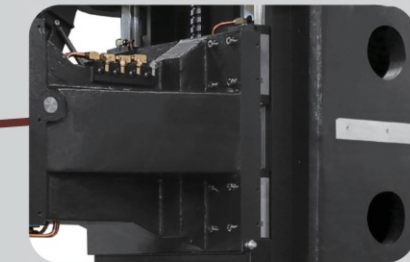
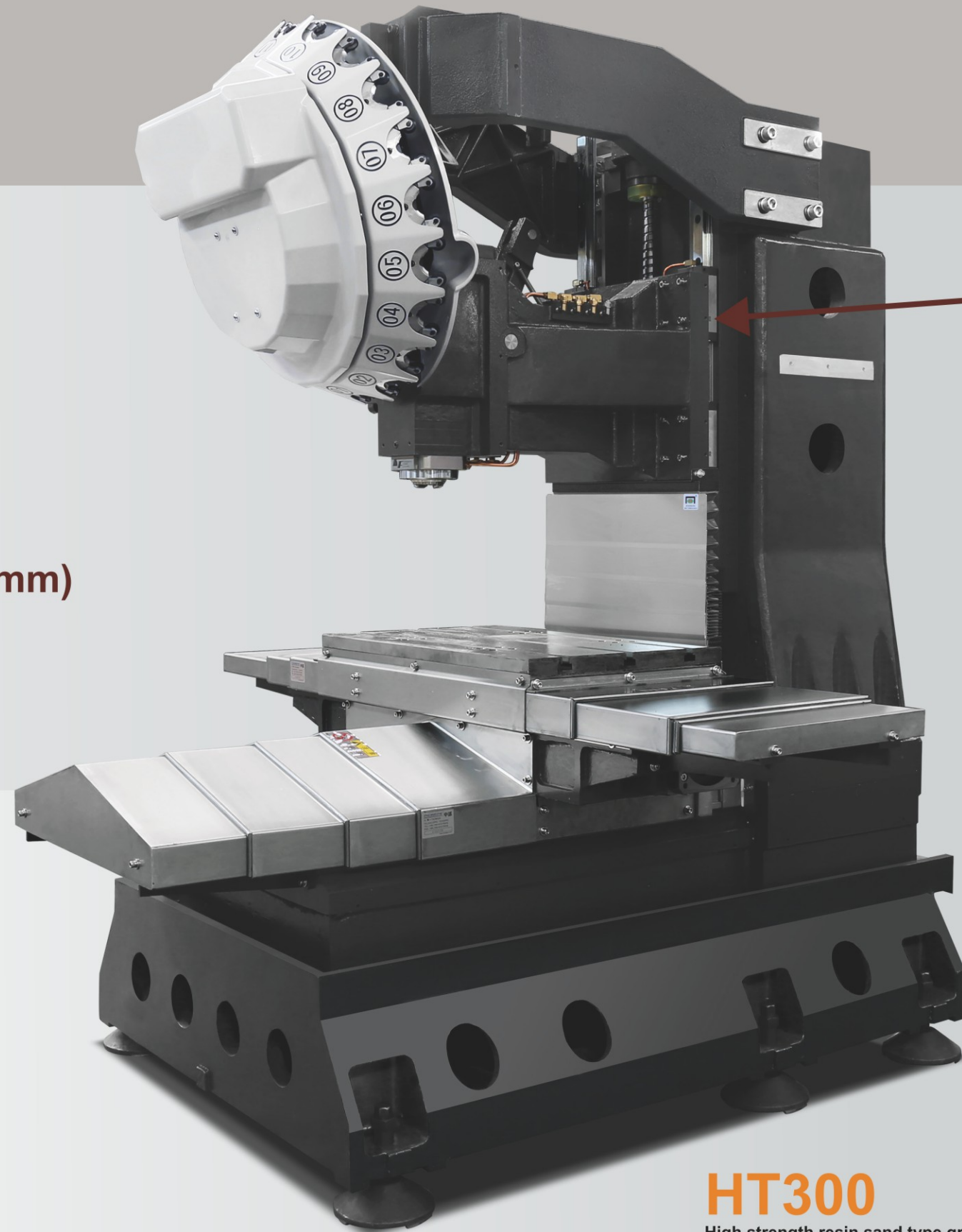
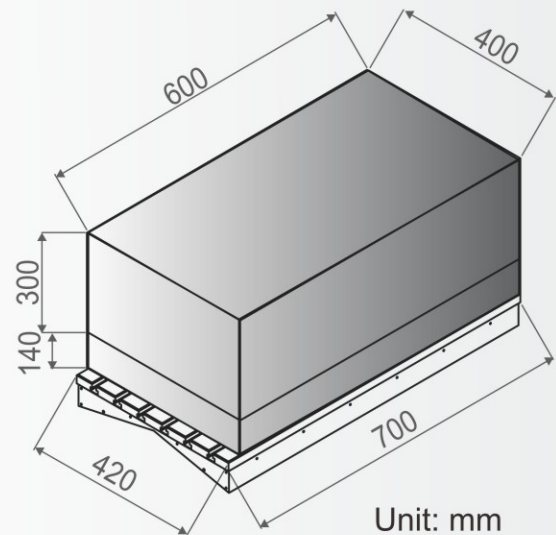
DONGGUAN BAOKE PRECISION MACHINERY CO.,LTD.

## Feed & Travels

**48/48/48**      **600/400/300**  
X/Y/Z (m/min)    X/Y/Z (mm)

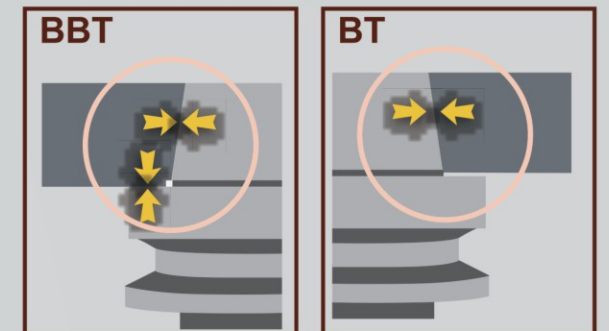
**21**  
Tools

Linear guideway width X/Y/Z(mm)  
**30/30/35**



2 sliders

Spindle nose to table  
**140-440mm**  
Max load on table  
**400KG**



**BAOFENG Big Plus spindle**

**HT300**

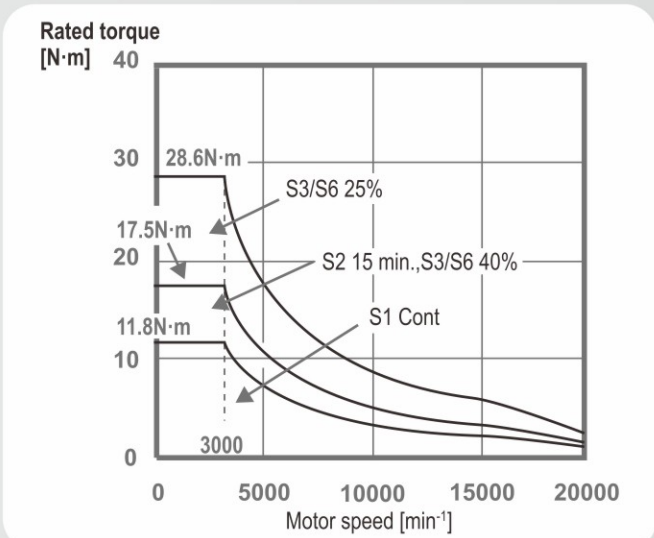
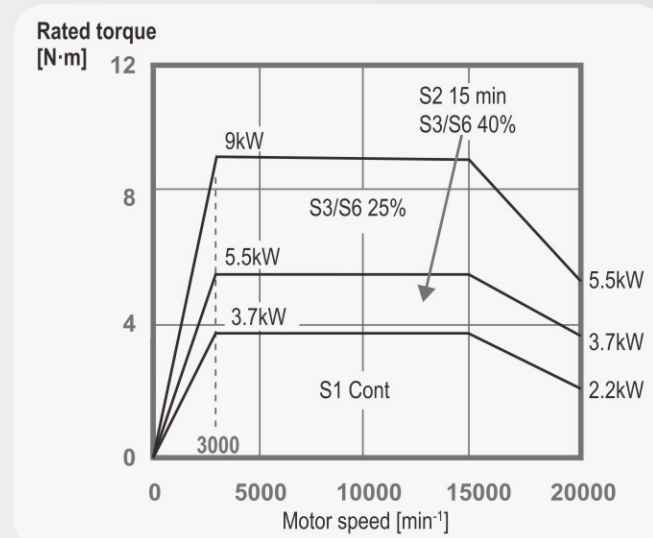
High strength resin sand type gray cast iron

## Fanuc

Spindle BT30 20000rpm

5.5KW/17.5NM(S2-15min S3/S6-40%)

α il2/20000-B

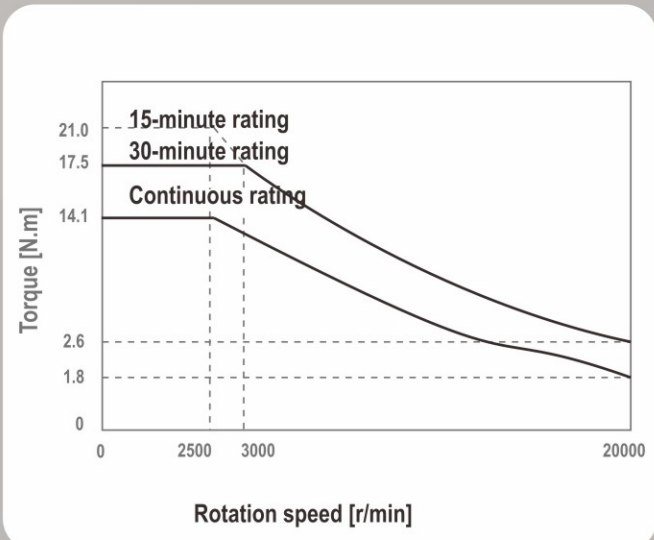
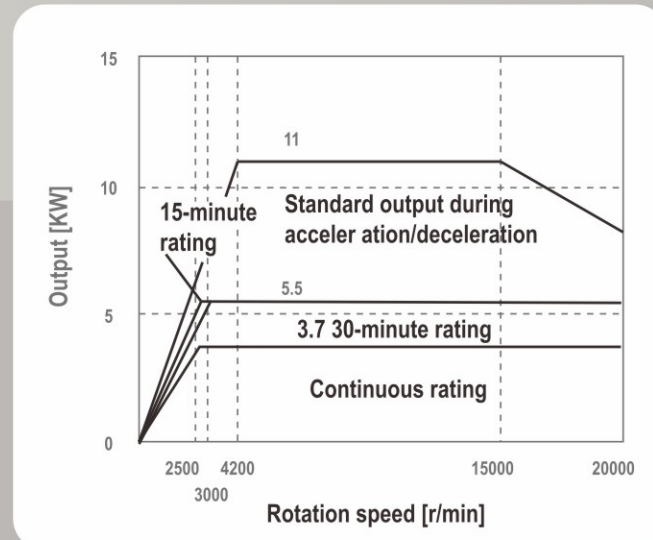


## Mitsubishi

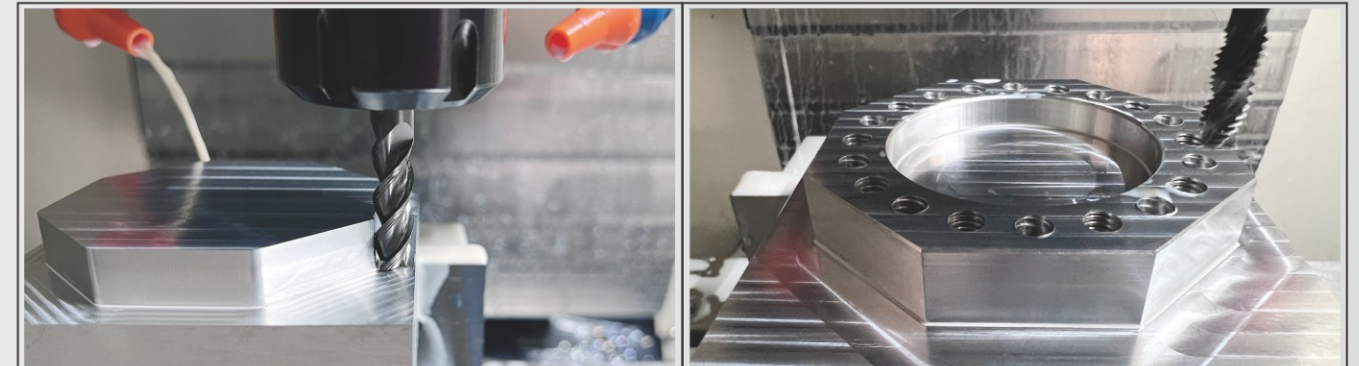
Spindle BT30 20000rpm

5.5KW/17.5NM(30-minute rating)

SJ-DL5.5/200-01T



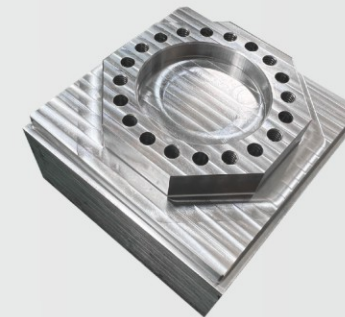
## Cutting parameter



Material: 6061  
Tool: Φ10  
Feed: 5000mm/min  
Rotation speed: 12000rpm  
AE 1.5mm

Material: 6061 aluminum  
Minimum M1  
Maximum M12 ( Load93% )  
Drilling: 1V45-12V45(Load98%)

## Cutting capacity



### Drilling parameter

Material: 6061 aluminum  
Pore diameter: Φ1.6-1000 pcs  
Feed: 600mm/min  
Rotation speed: 3000rpm  
G81 Z-1.2  
G83 Z-10 Q2.0

G81: F300 \*M: 46S

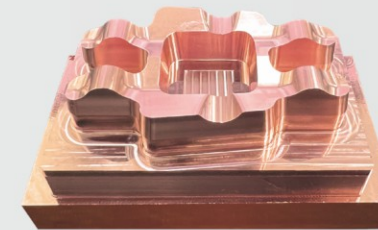
G83: F200 \*M: 2M45S

### Taping parameter

Material: 6061 aluminum  
M2/100 PCS  
Feed: 3000mm/min  
Rotation speed:2000rpm  
G84 Taping to the end:6  
G84 Peck taping:8, 3mm/time

G84(Peck taping): F800 \*M: 8M46S

## Surface quality test



Material: Red copper  
Tool: 3R0.2/R1  
Feed: 1800  
Rotation speed:15000rpm  
Time: 42min27s

Material: 6061

X/Y Tolerance: ≤0.012mm

X/Y Tolerance: ≤0.012mm

Z Tolerance: ≤0.008mm

Z Tolerance: ≤0.008mm

Surface smoothness: Ra1.2

## Standard Accessories

- FANUC 0i-MF(8.4") controller
- Or MITSUBISHI M80(8.4") controller



Program transfer

Tool setter

Accuracy adjustment



Home page

Auto edge searching



• Tool holder air blowing



## Optional Accessories



BT30 side milling tool holder



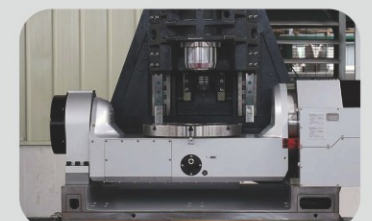
Oil mist collector



Tool setter



4th axis rotary table



5th axis rotary table

Item	Unit	BF-T6
<b>Travel</b>	X axis travel	mm 600
	Y axis travel	mm 400
	Z axis travel	mm 300
<b>Distance</b>	Spindle center to column	mm 420
	Spindle nose to table surface	mm 140-440
<b>Worktable</b>	Worktable area	mm 700x420
	Dimension of T-slot	mm 3-14x135
	Max.worktable load	kg 400
<b>Spindle</b>	Spindle taper	BBT30
	Spindle motor/ (S2-15min S3/S6-40%) (FANUC)	kw 5.5/17.5
	Spindle motor/torque (30-minute rating) (MITSUBISHI)	kw 5.5/17.5
	Max.spindle speed	rpm 20000
<b>Axial</b>	Rapid feed rate-X/Y/Z ( Fanuc )	m/min 48/48/48
	Rapid feed rate-X/Y/Z ( Mitsubishi )	m/min 48/48/48
	Axis acceleration	g 1.0
	Axis feed motor-X/Y/Z ( Fanuc )	kw 1.5/1.5/3.0
	Axis feed motor-X/Y/Z ( Mitsubishi )	kw 1.5/1.5/3.0
	X axis screw (Dia./pitch)	mm 30/16
	Y axis screw (Dia./pitch)	mm 30/16
	Z axis screw (Dia./pitch)	mm 30/16
<b>Tools</b>	Linear guide width(X/Y/Z)	mm 30/30/35
	Max.tool length	mm 250
	Max.tool weight	kg 3
	Tool magazine capacity	21
	Max.tool(full)	mm 80
	Max.tool diameter(without adjacent tools)	mm 140
	Tool change time	sec. 0.4
<b>Accuracy (ISO230-2)</b>	Pull stud angle	deg. BT30/45°
	Tool selection method	Proximity tool selection
	Positioning accuracy(bi-direction)	mm ±0.003/300
	Repeat positioning	mm ±0.002/300
<b>Machine</b>	Power requirement	KVA 13
	Min/Max.air pressure	kg/cm <sup>2</sup> 5-7
	Coolant tank capacity	L. 190
	Std.NC controller(Fanuc)	MITSUBISHI M80
	Std.NC controller ( Mitsubishi )	Fanuc Oi-MF PLUS
	Floor space requirement	mm 1800x2512
	Machine height	mm 2430
Machine weight	kg 3600	

### Standard Accessories:

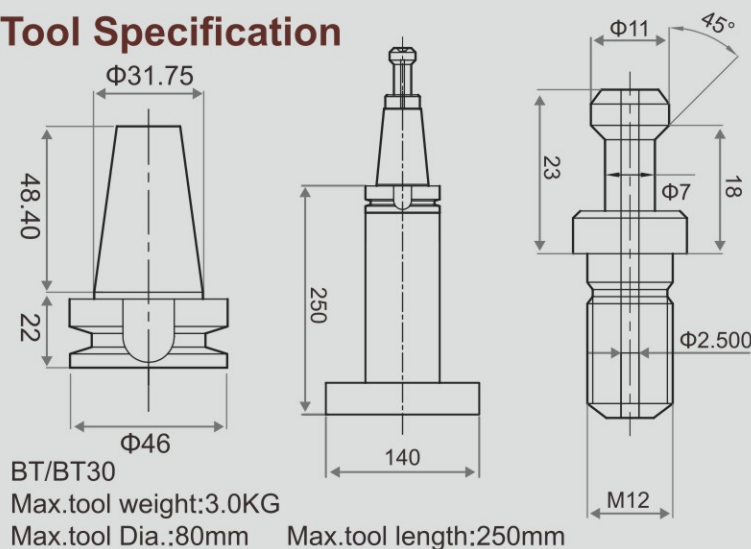
- FANUC Oi-MF(8.4") controller  
Or MITSUBISHI M80(8.4") controller
- Full enclosed metal cover
- 21T servo magazine
- Spindle oil coolant
- Heat exchanger
- Chassis flushing system
- Tool holder air blowing
- Central lubrication system
- Alarming light
- Auto power off, safety switch
- Rigid tapping
- MPG
- Tools and toolbox
- Leveling pads
- Air gun
- High pressure water gun

### Optional Accessories

- Air conditioner for electric cabinet
- Auto door
- Oil mist collector
- BT30 side milling tool holder
- Tool setter(for tool length)
- Tool setter(for tool length & radius)
- Laser tool setter
- Auto part measuring
- 4th axis rotary table(MAX ,φ210)
- 5th axis rotary table(MAX ,φ125)

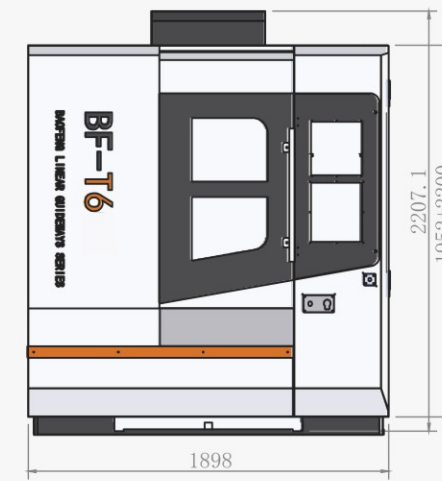
	Machining center	
	M80 series	
	TypeA	TypeB
Max Number of Axes (NC Axes+Spindles+PLC axes)	11	9
"Max. Number of NC Axes( In Total of All the Part Systems)"	8	5
Max. Number of Spindles	2	2
Max. Number of PLC Axes	6	6
Number of Simultaneous Contouring Control Axes	4	4
Max. Number of NC Axes in a Part System	8	5
Max. Number of Part Systems	2	1
Control Unit-side High-speed Program Server Mode	—	—
Display Unit-side High-speed Program Server Mode	○	○
Front-side SD Card Mode	○	○
Least Command Increment	0.1μm	0.1μm
Least Control Increment	1nm	1nm
Max. Number of Tool Offset Sets	400 sets	400 sets
Max. PLC Program Capacity[Steps]	64000	32000
Multiple-project PLC (Max. Number of Projects)	3	1
Touch Gesture Operation	○	○
Level Management Operation Authority Function	○	○
Workpiece Coordinate System Offset	—	—
3D Program Check	○	○
Interactive Cycle Insertion	—	—
Multiple-spindle Synchronization	—	—
Spindle Superimposition Control	—	—
High-accuracy Control	○	○
High-speed High-accuracy Control I	○	○
High-speed High-accuracy Control II	○	—
SSS Control	○	—
Tolerance Control	○	—
Variable-acceleration Pre-interpolation Acceleration/Deceleration	—	—
OMR-FF Control	○	○
Rapid Traverse Block Overlap	○	○
Spindle-mode Servo Motor Control	○	○
Real-time Tuning 1(Speed Gain Switch)	○	—
Real-time Tuning 1 (Rapid Traverse Time Constant Switch)	○	—
Tool Center Point Control	—	—
Inclined Surface Machining Command	○	—
3-dimensional Manual Feed	○	—
R-Navi	○	—
CC-Link (Master/Local)	□	□
PPROFIBUS-DP (Master)	□	□
Ethernet/IP (Scan)	□	□
MES Interface Function	○	○
EcoMonitorLight Connection	□	□
Machine Group-based Alarm Stop	○	—
Smart Safety Observation	—	—

### Tool Specification

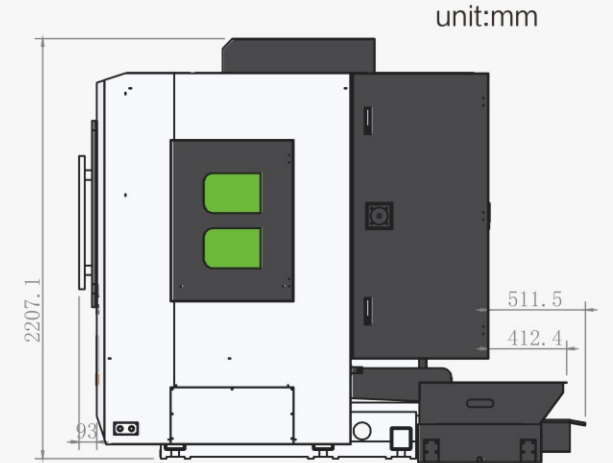


Controlled axis / Accuracy compensation function		Type 5
Control axes	3 axes(X,Y,Z)4 axes (X,Y,Z,B)	○5
Simultaneous controlled axes	3 axes (Max. 4 axes)	○
Least setting unit	X,Y,Z axes: 0.001mm(0.0001inch) B axis: 1deg[0.001]deg	○
Interpolation straightness compensation		☆
AI Thermal displacement compensation		☆
Ball screw thermal expansion compensation		○
Inch/Metric Conversion		○
Linear scale optional closed loop	Add linear scale interface communication module(☆)	○
Double positions feedback	Optional when with linear scale(☆)	☆
<b>Operation</b>		
3D rigid tapping retraction		-
3D manual feed		-
3D coordinate exchange		-
Inclined surface indexing command		-
Handwheel retraction		○
Multiple steps skip		○
Processing preparation support function	Edge search	○
Small diameter deep-hole drilling cycle		☆
Dynamic graphics display		○
Program restart		○
Selected program block skip		☆
Memory card program editing and running	63 PCS	○
USB memory program running	USD DNC machining	-
iHMI		-
MANUAL GUIDE 0i		☆
MANUAL GUIDE i		-
Power-off retraction		○
Handwheel interruption		○
Interpolation function		○
Nano interpolation		○
Skip	G31	○
One-way positioning	G60	○
Normal direction control	Application 1: friction welding	☆
Tool front point control (TCP)	multi-axis machining	-
<b>Mold package option</b>		
High-accuracy program command	Include least setting Increment A~E	○
Pre-read program block		○
AICC I	40 block AICC I	○
AICC II	200 block AICC II	○
	400 block AICC II	-
Jerk control		○
Smooth tolerance control		○
Machining condition/mode selection		○
Smart adaptive Control		☆
<b>Program input</b>		
Optional block skip	9 blocks	☆
<b>Auxiliary/spindle function</b>		
Cs contour control	Serial communication spindle position control	○
Spindle orientation	M19(S_ _ _)	○
<b>Tool function / tool offset</b>		
Tool life management		○
Tool broken detection		○
<b>Editing function</b>		
Workpiece program storage	5,120m(2MB)	○
Extended part program editing	Copy, move and change of NC program	○
Data server function		☆
<b>Setting, display and diagnosis</b>		
Multi language display	Support 24 languagesz	○9

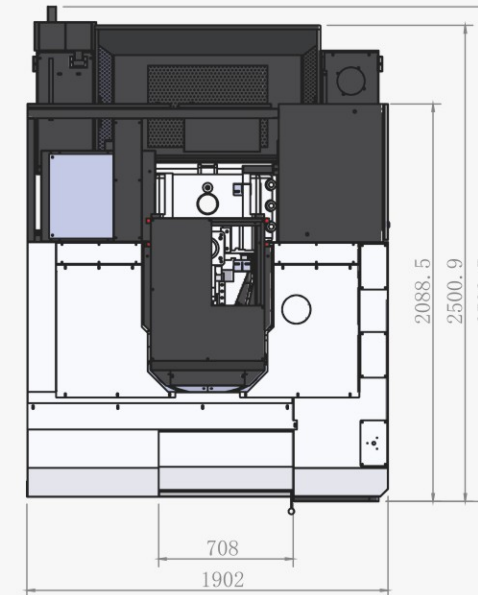
Note: ○Standard ●Required ☆ Optional -Not Applicable Please refer to the specification sheet for details.



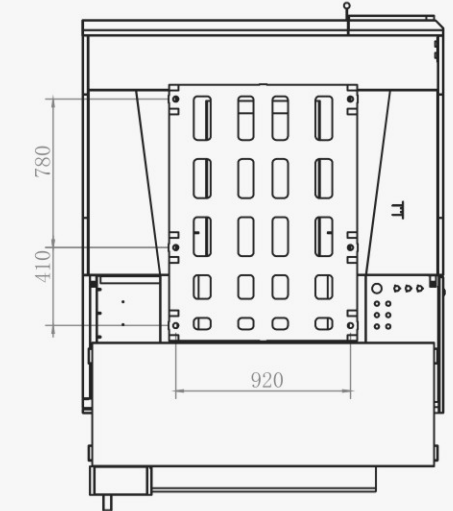
Front view



Side view



Vertical view



bottom view

## Installation preparations

NO	Project	Requirement	Remark
1	Confirm entry width and height	Enough space for equipment	External dimensions of the equipment +500mm
2	Power cable line	4*6mm <sup>2</sup>	Sufficient to connect to the machine
3	Compressed air access	Air source filtration accuracy 100µm, air pipe outer diameter 10mm	External air pipe should be enough to connect to the machine interface
4	Shipping solution	1.Confirmation of the transport method according to the road conditions around the plant and the largest packing dimensions 1.Confirmation of equipment access according to the actual conditions	