Twinhorn®

VTJ

VTJ SERIES

FOUR BOX-WAY SUPER POWER
MACHINING CENTER 1480/1680/1880

TÜV CERT DIN EN ISO 9002 CE

Twinhorn

CHI-FA MACHINERY MANUFACTURER CO., LTD.

No.44-8, MING-CHUNG RD., SHENG-KANG DIST.,
TAICHUNG CITY, TAIWAN 42948
Tel: +886-4-2562-8747 (Rep.)
Fax: +886-4-2561-4199
E-mail:inquiry@twinhorn.com.tw
www.twinhorn.com.tw

MTT TECHNOLOGY

MTT Technology S.r.l
Via Vegri, 29-36047 Montegalda (VI), Italy
T +39 044 4737371
M+39 388 0553230
info@mtt-technology.it
sales@mtt-technology.it
www.mtt-technology.it

Design 201811 VTJ Series(E2)1000P

VTJ SERIES

Stable four box-way saddle optimization of st ructure design

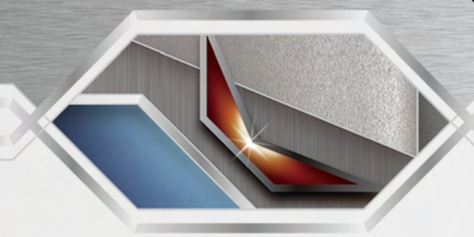
FOUR BOX-WAY SUPER POWER
MACHINING CENTER 1480/1680/1880

All cast of machine are maunfactured by accurate 5-sided machinging center with one-piece maching.And measured by large type three-dimensional to ensure the precision of individual part.Machine is assembled according to ISO operating standards by the technicians who trained for long tern, that makes CHI-FA's high quality.

	1480	1680	1880
X=	1400mm	1600mm	1800mm
Y=	800mm	800mm	800mm
Z=	800mm	800mm	800mm

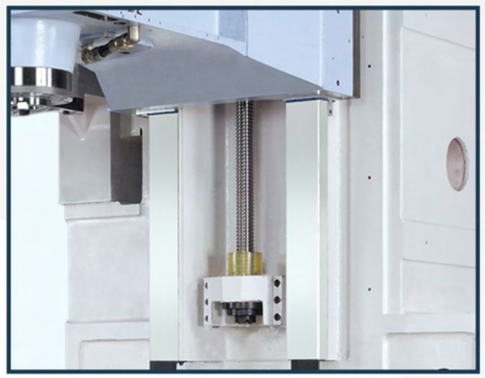
picture : VTJ-1680

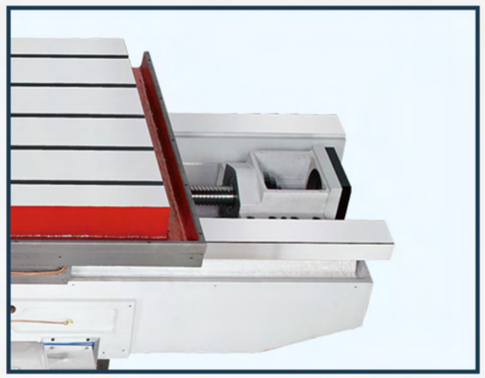
Unique Y axis oversized four box-way saddle design



1. All cast are built with high tensile Meehanite FC-30 high alloy cast irons, which provide outstanding wear-resistance.

2. Monoblock magazine support used with convex column which is long span length, to reinforce structure. That can ensure the blance and stabil ity of machine during maching, and provides users overall effectiveness performance.

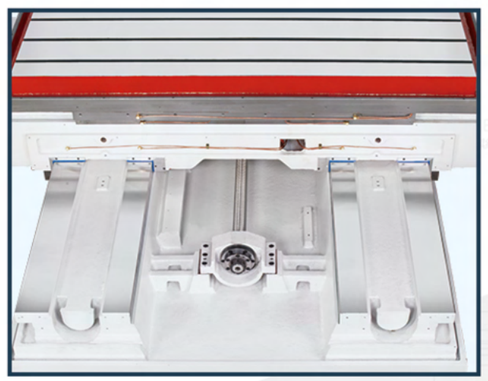


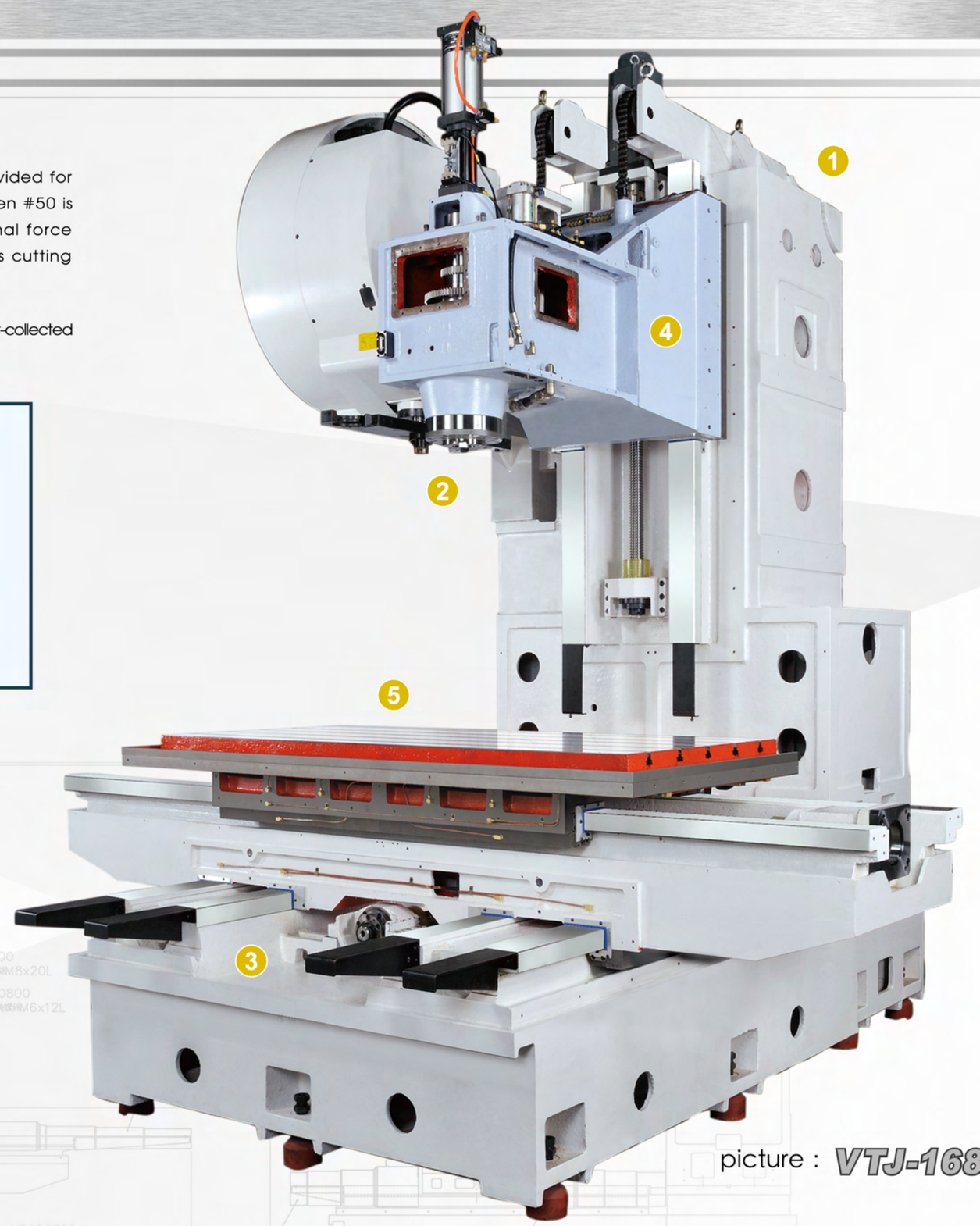


4. Built-in #40, belt-driven#40 are provided for midheight speed cutting. Gear driven #50 is suitable for low-speed high-torsional force heavy cutting. It can satisfy various cutting demand.

5. Extra size table design with chip & coolant-collected tank is easy for operator.

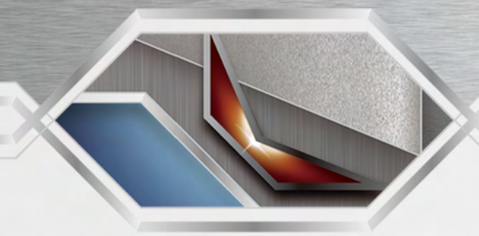
3. Unique Y axis oversized four box-way saddle design make it can absorb the stress appeared with heavy cutting. Conformity golden ratio with long span convex column. Bending length of saddle is the least, that can ensure the machine dynamic accuracy.



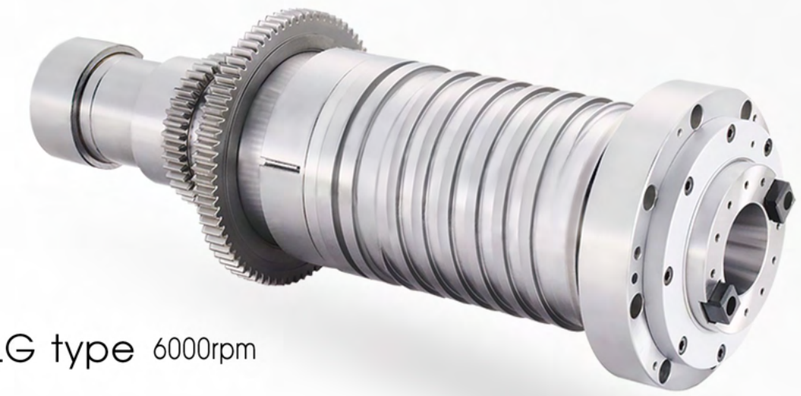


picture : VTJ-1680

Powerful gear driven spindle design



- ◎ The spindles are designed and manufactured by CHI-FA's own R & D. The spindle has unique precision, lifespan and high rigidity cutting feature.
- ◎ High-low and continuous variable speed gear driven design. Gear manufactured by alloy steel is hardened and grounded. It is suitable for low-speed high-torsional force heavy cutting.
- ◎ Using floating tool clamping system to ensure the precision and extend lifespan of bearing.Head of gear used forced circulating cooling to control thermal change,so that can ensure long-tern cutting precision.
- ◎ Spindle used P4 class precision angular contact ball bearing and long span support design, that can sustain radial and axial thrust for long time.It is suitable for heavy cutting.
- ◎ Spindle nose used labyrinth ring with air curtain of spindle, to avoid permeating chips and oil gas and ensure the precision and extend lifespan of bearing.

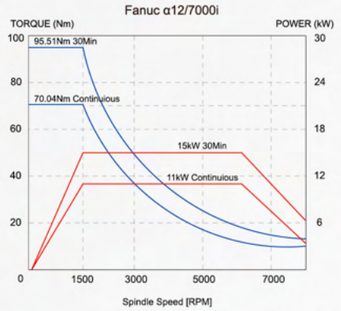


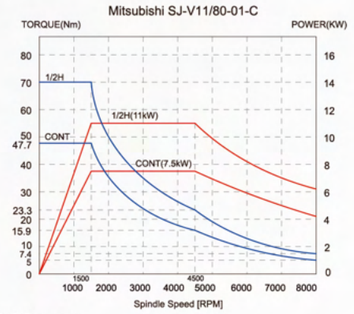
BT-50 LG type 6000rpm

BT40 belt type 8000rpm

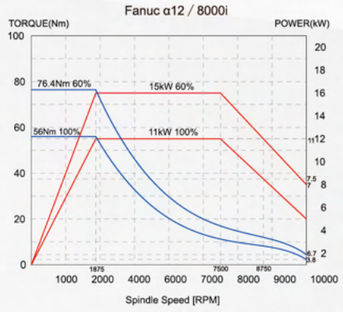
Spindle Motor Torque

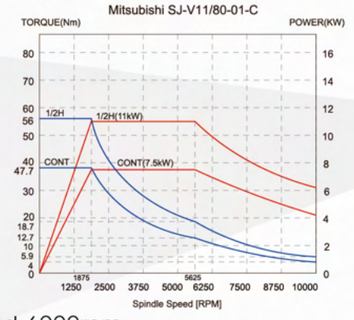
#40 belt-drive spindle 8000rpm



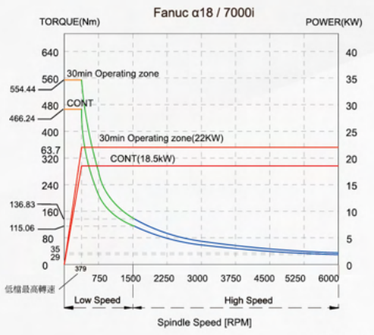


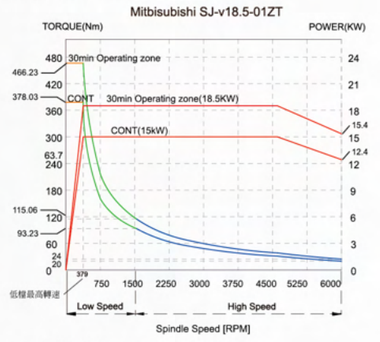
#40 belt-drive spindle 10000rpm



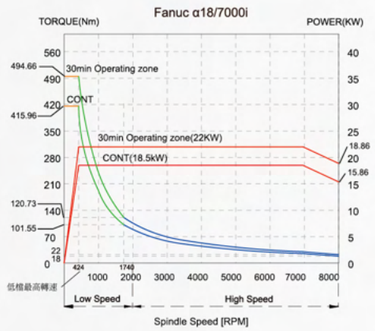


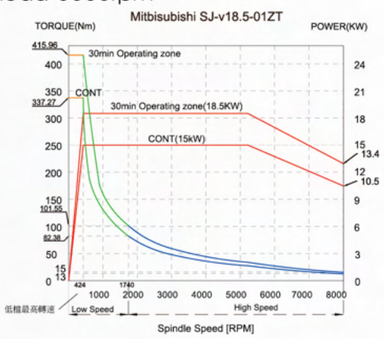
#50 dual clutch gear head 6000rpm



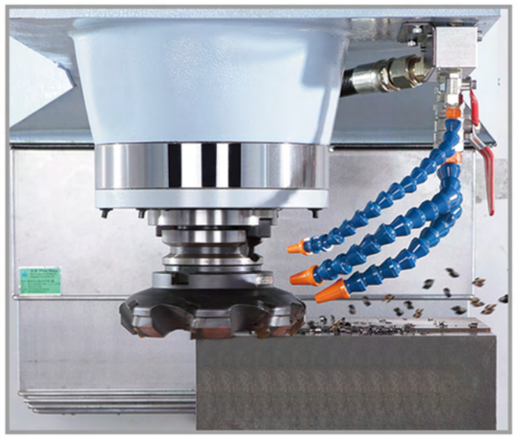


#50 dual clutch gear head 8000rpm



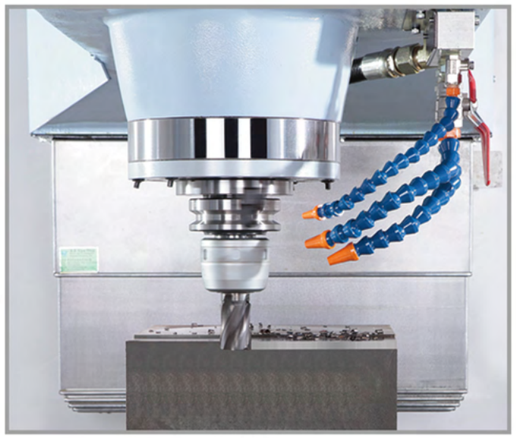


Cutting ability



Face Millng

Tool diameter	160 mm
Tool edge amount	8 pcs
Material	S50C
Spindle speed	380 RPM
Cutting feed	900mm/min
Cutting width	120 mm
Cutting depth	7 mm
Chip removal	756 cc /min



End Millng

Tool diameter	50 mm
Tool edge amount	4 pcs
Material	S50C
Spindle speed	380 RPM
Cutting feed	960mm/min
Cutting width	15 mm
Cutting depth	25 mm
Chip re moval	326 cc /min

Drilling

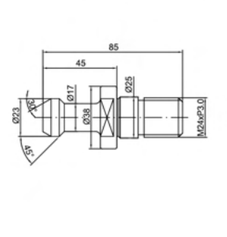
Bit diameter	50 mm
Material	S50C
Spindle speed	380 RPM
Cutting feed	200mm/min
Chip removal	392.5 cc/min

Tapping

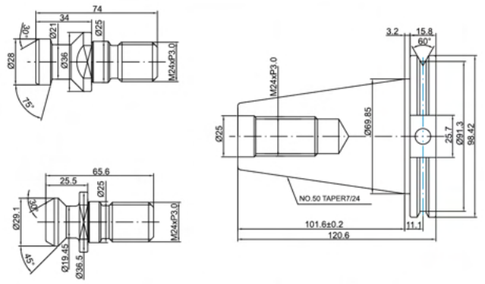
Tapb	M45
Material	S50C
Spindle speed	100 RPM
Cutting feed	450 mm/min

Tool Shank & Pull Stud

BT-50/DIN-50/CAT-50

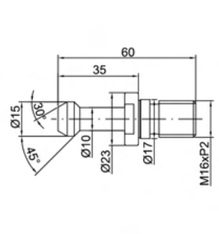


BT-50 Tool shank/Pull stud

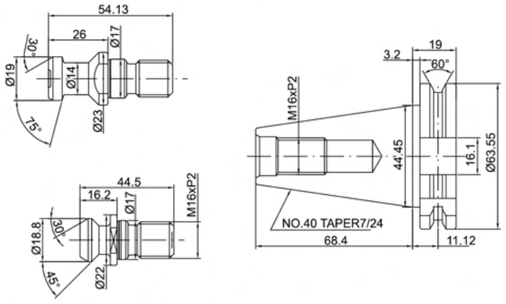


CAT-50,DIN-50 Tool shank/Pull stud

BT-40/DIN-40/CAT-40



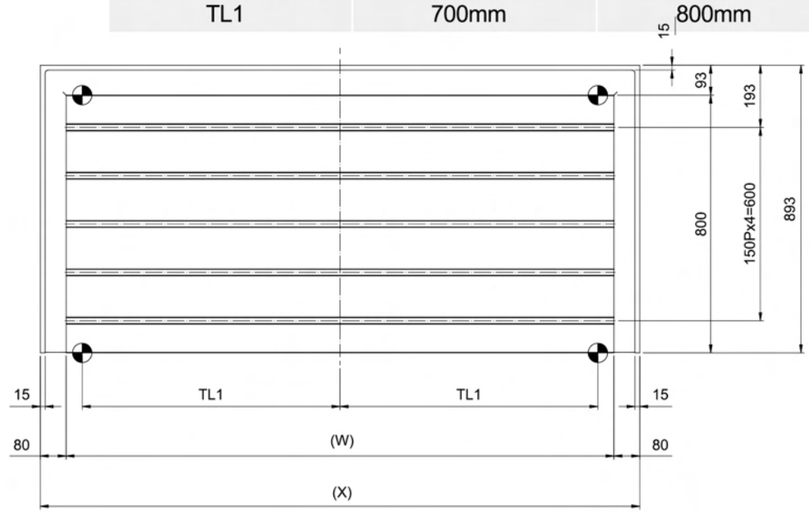
BT-40 Tool shank/Pull stud

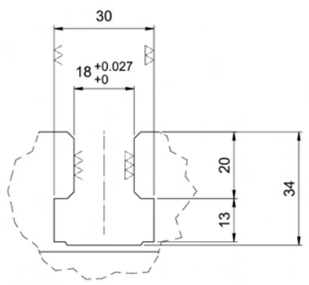


CAT-40,DIN-40 Tool shank/Pull stud

Table Dimensional Drawing

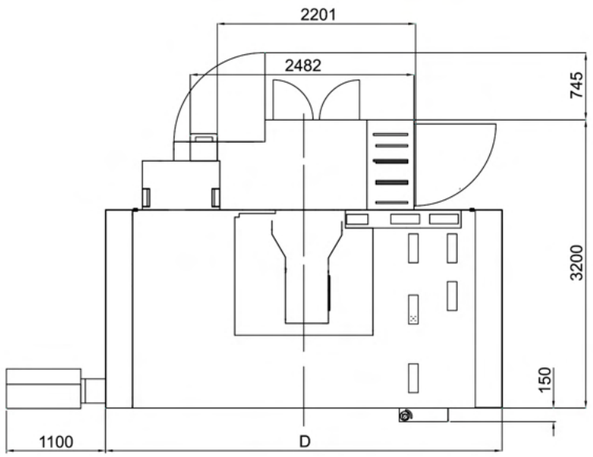
Model	VTJ-1480	VTJ-1680	VTJ-1880
Length	1660mm	1860mm	2160mm
Surface length	1500mm	1700mm	2000mm
TL1	700mm	800mm	900mm

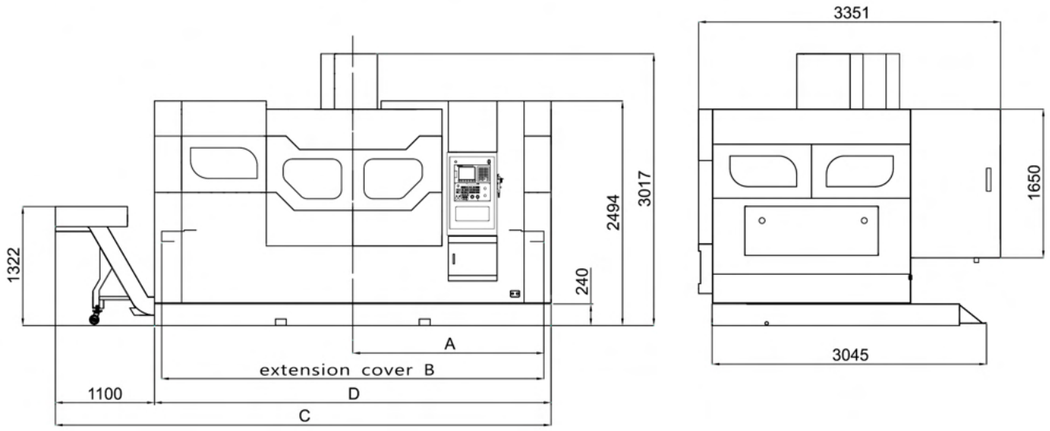




Machine Specification

Dimensional Drawing (VTJ-1480 / 1680 / 1880)





Model	VTJ-1480	VTJ-1680	VTJ-1880
A	1913	2121	2431
B	3826	4242	4862
C	5500	5500	6100
D	4400	4400	5000

Item	Unit	VTJ-1480	VTJ-1680	VTJ-1880
Travel				
X-axis travel	mm	1400	1600	1800
Y-axis travel	mm		800	
Z-axis travel	mm		800	
Spindle center to Z-axis guide way surface	mm		900	
Spindle nose to table surface	mm		200~1000	
Table				
Table size	mm	1500 × 800	1700 × 800	2000 × 800
The maximun load	kg	1800	2000	2200
T-slot (amount / distance)			5/150	
Pitch of T solts	mm		18	
Spindle				
Spindle nose taper			BT-50 (Opt : BT-40)	
Spindle motor (Fanuc)	kw		18.5/22 (Cont./15min)	
Spindle motor (Mitsubishi)	kw		15/18.5 (Cont./15min)	
Spindle speed	rpm		BT-50 dual clutch type gear head 6000 rpm	
Automatic tool changer				
ATC type			Arm type	
Tool storage capacity			24 (Opt : 32/40)	
Max. tool diameter (with adjacent tool / with gap)	mm		130/250	
Max. tool length	mm		350	
Max. tool weight	kg		15	
Feed rate				
X Rapid feed rate	mm/min		15000	
Y Rapid feed rate	mm/min		15000	
Z Rapid feed rate	mm/min		12000	
Cutting feed rate	mm/min		12000	
General information				
Positioning accuracy	mm		±0.005/300	
Repeatability accuracy	mm		±0.005/300	
Required power	kVA		40	
Air pressure capacity	kg/cm^2		6	
Machine size (width) (Approx.)	mm	4400	4400	5000
Machine size (depth) (Approx.)	mm	3350	3350	3350
Machine size (height) (Approx.)	mm	3020	3020	3020
Machine weight	kg	13000	14000	15000
Coolant tank capacity	Liter		480	

※Mzchine specifications, accessories and appearance dimensions are subject to change without prior notice by CHI-FA.

Standard Accessories

- Coolant system
- Work lamp
- Arm type with 24T (BT-50)
- Fully covered splash guard
- Leveling bolts and pads
- Auto. Power off (M30)
- Rigid tapping
- Floating tool clamping system
- Auto. Lubrication system
- Tool box with adjustment tools
- RS-232 interface
- MPG
- Heat exchanger for electrical cabinet
- Spindle air blast device
- Working air blast
- Dual clutch gear head (BT-50)
- Fanuc 0i-MF

Optional Feature

- BT-40 Belt type spindle (8000/10000 rpm)
- Arm type 32T/40T ATC
- Coolant through tool holder device
- Coolant through spindle included filtering syste
- 4th axis rotary table
- Chain type chip conveyor with cart
- Transformer
- CE regulation
- Siemens 828D/840D SL
- Mitsubishi M80