

FORTEX



ООО НПО ФОРТЭКС
Украина.
тел. - 048 7012122
тел. - 056 7885050
тел. - 062 3285535
e-mail: info@fortex.in.ua
www.fortex.in.ua

VC SERIES
ENGLISH



LINEAR GUIDEWAYS



TAKUMI MACHINERY CO., LTD

Headquarter

No.50, 35th, Taichung Ind. Park, Taichung, Taiwan 407
Tel: +886-4-2358-3838
Fax: +886-4-2358-0176
Website : www.takumi.com.tw
E-mail : sale-os@takumi.com.tw

Taipei Office

No.7, Lane 49, Mingde St., Sinjhuang Dist., New Taipei City.
Tel: +886-2-8991-2811
Fax: +886-2-2993-1639

Takumi Machinery (Kunshan) Co., Ltd.

No. 3069, Pei Men Rd., Yushan Town, Kunshan City
215300, China
Tel: +86-512-8260-8008
Fax: +86-512-8260-8009

Vertical Machining Center

- ◆ High Speed & High Precision
- ◆ 3 axes linear guide ways
- ◆ Rigid Structure design



www.takumi.com.tw

TKM-201310-VC-2000_EN

The Achievement of Takumi's Innovation and Technology The Perfect Performance of Fast Cutting and High Stability

VC series is special designed for the industries of 3C parts machining and mold machining. To meet the requirements of fast cutting, 3 axes are equipped with linear guide ways. The highest rapid traverse reaches 48 m/min (MITSUBISHI NC).

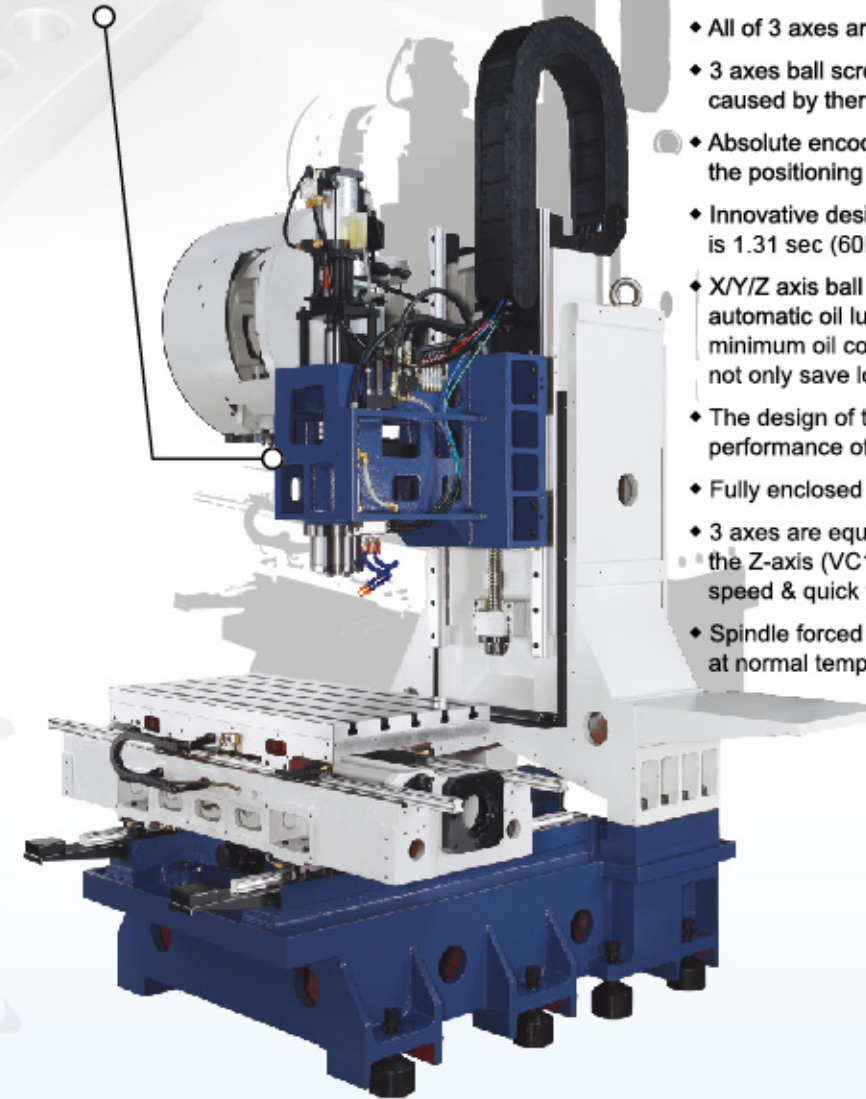


- All accessories are covered inside the box-shape enclosure, which not only minimizes floor space, but reduces the cost of installation & transportation.
- Large internal space can reduce working interference effectively.
- Table is higher than the bottom rim of the side windows, making workpiece set-up easier.



Tilting bed surface and flushing coolant system provide perfect performance of chip flushing.

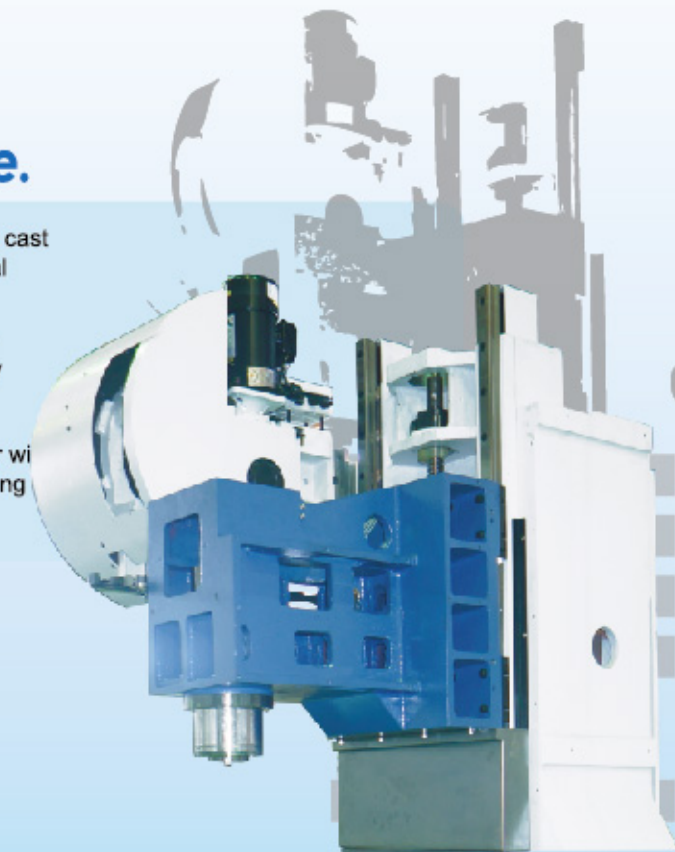
Spindle head is designed without counter balance to allow high speed & quick response.



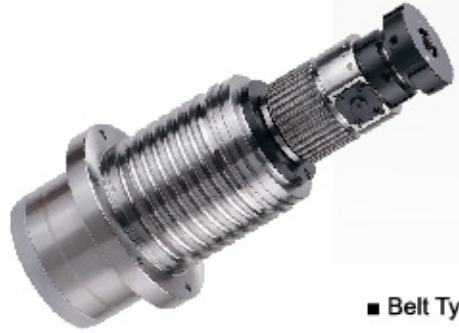
- VC0852: X · Y · Z travel: 860x520x610mm.
- VC1052: X · Y · Z travel: 1060x520x610mm.
- All of 3 axes are equipped with high precision ball type linear guide ways.
- 3 axes ball screw pretension design reduces the thermal deformation caused by thermal growth, offering the best accuracy.
- Absolute encoder motors are used in 3-axis feeding system to ensure the positioning accuracy.
- Innovative designed tooling changing system. T to T changing time is 1.31 sec (60Hz).
- X/Y/Z axis ball screws and linear guide ways are lubricated by centralized automatic oil lubrication system. By accurate calculation of oil supply, the minimum oil consumption achieves the best lubricating effects, which not only save lot of lubrication oil, but also makes coolant will not stink.
- The design of tilting bed surface, flushing coolant system provides perfect performance of chip removal.
- Fully enclosed splash guard provides operator safety during operation.
- 3 axes are equipped with ball type linear guide ways, 6 guide blocks on the Z-axis (VC1052) & 4 guide blocks on the X/Y axis, allowing high speed & quick feed response.
- Spindle forced cooling system to ensure the operation of the spindle at normal temperature.

High Rigid and High Stable Structure.

- Bed, column, saddle and other main casting are made of Meehanite grade cast iron and released the stress by heat treatment, ensuring the best structural stability positioning accuracy.
- The assembling space between bed and column, where machining stress concentrated on, is enhanced to provide powerful and stable cutting ability to spindle.
- The best design of cast iron weight. The stable bed and column, altogether with lightweight design of head, saddle and table, provide the best stability during high acceleration and deceleration movement.

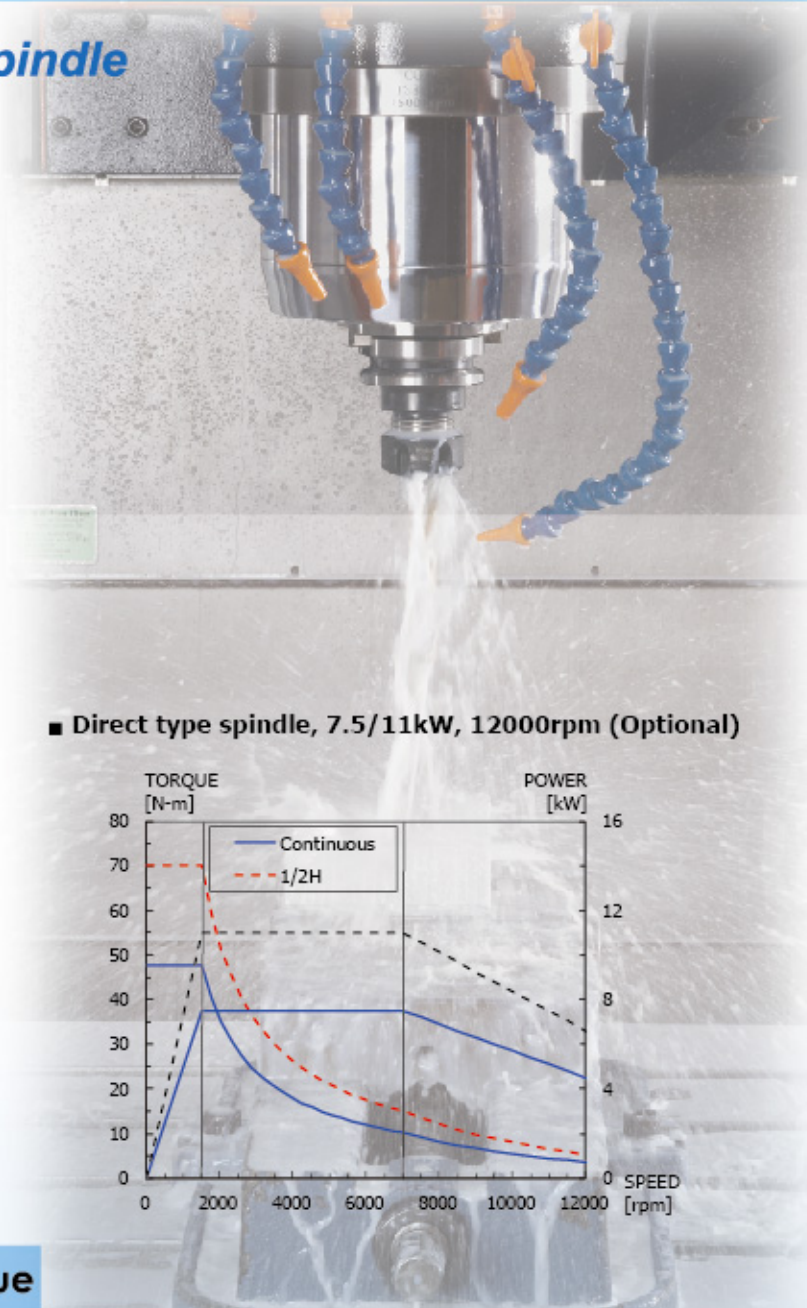


High Accuracy/Performance Spindle



■ Belt Type Spindle

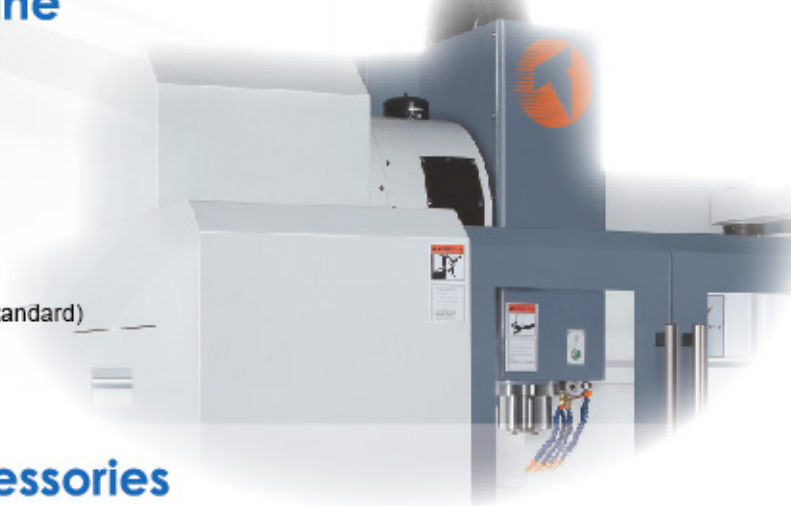
- ◆ Spindles are made by Taiwanese professional spindle manufacturers, featuring high accuracy and high performance.
- ◆ Spindle cooling system reduces thermal deformation and prolongs working life of spindle.



ATC & Magazine

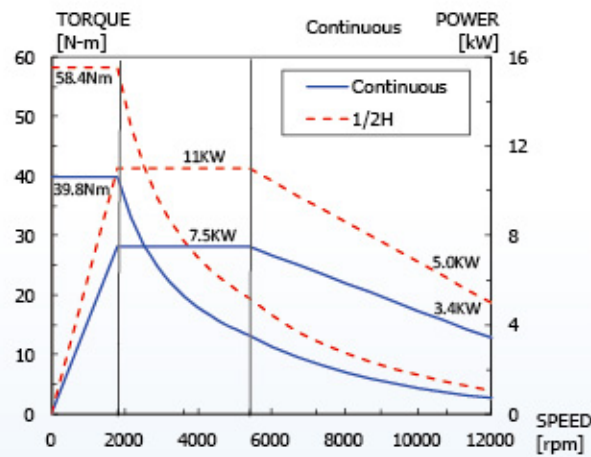


24T, BT40, ARM type ATC (Standard)

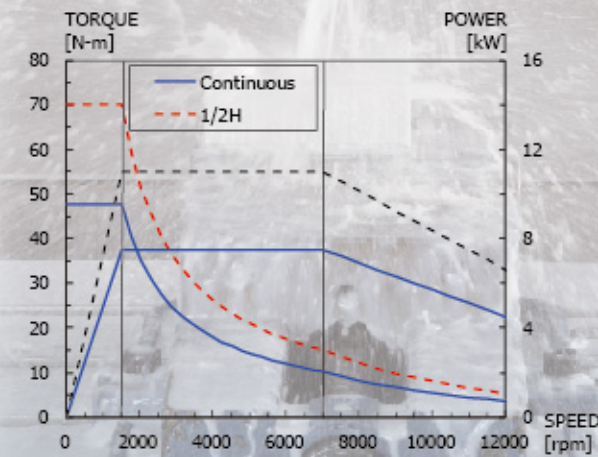


Power & Torque Chart

■ Belt type spindle, 7.5/11kW, 12000rpm (Standard)



■ Direct type spindle, 7.5/11kW, 12000rpm (Optional)



Max. Excellent Cost/Performance Value

VC series is designed to meet the requirements of fast cutting from the industries of 3C parts machining and mold machining. Excellent performance can reduce the mold delivery, processing costs and improve product competitiveness.

Optional Accessories



■ Workpiece measurement system



■ Tool Length measurement system



■ Linear scale (3 axes)



■ Chip conveyor/ Cart



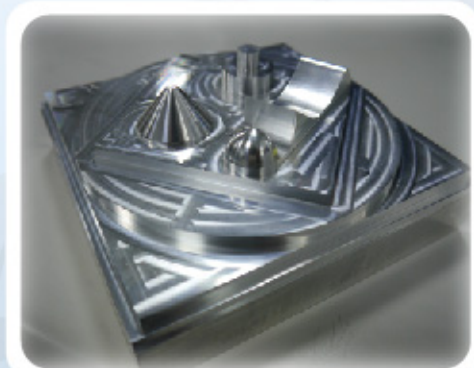
■ Coolant through spindle



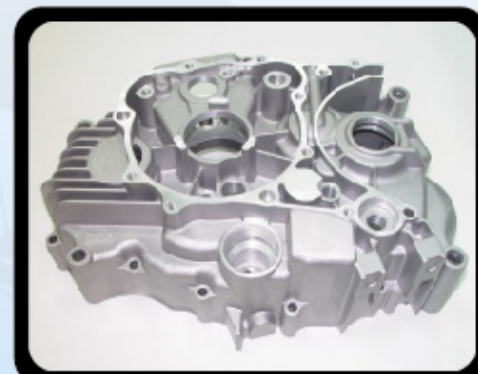
■ 4th axis rotary table



■ Oil mist collector



TAKUMI Test cutting workpiece
Material: Aluminum 7075
Application:
Surface / acute angle / positioning precision
excellent performance



Hood test cutting workpiece
Material: Aluminum 7075
Application:
High speed working on different angle & surface

Quality Management (ISO 9001:2008)



■ Laser inspection



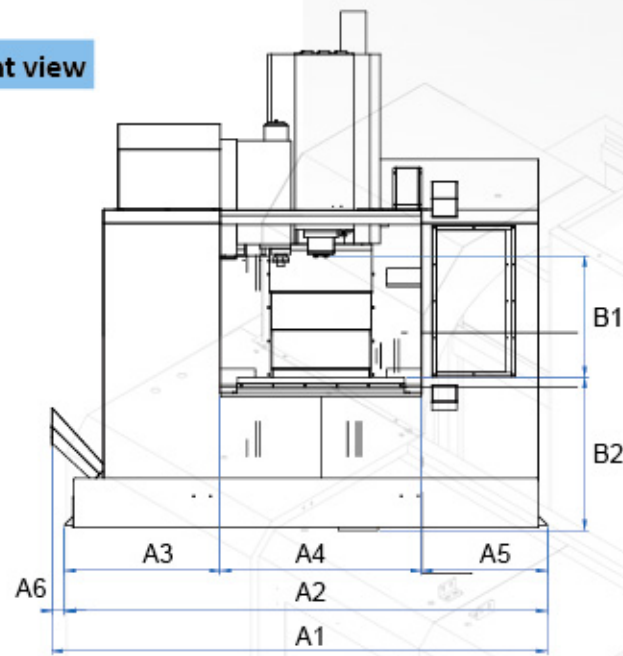
■ Ball bar inspection



■ Spindle test running

Dimensions

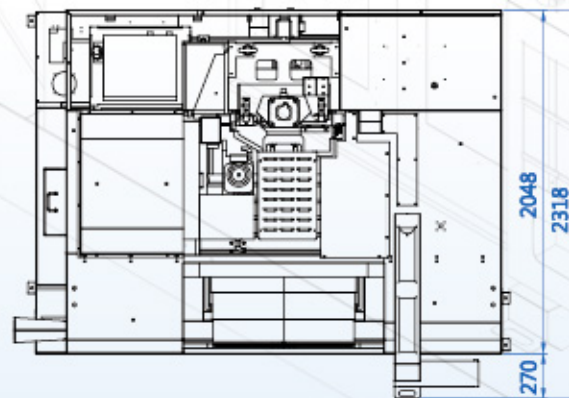
Front view



Front view dimension Unit:mm

	VC0852	VC 1052
A1	2958	3258
A2	2880	3180
A3	930	1080
A4	1200	1350
A5	750	900
A6	78	78
B1	725	725
B2	915	915

Top view



Side view

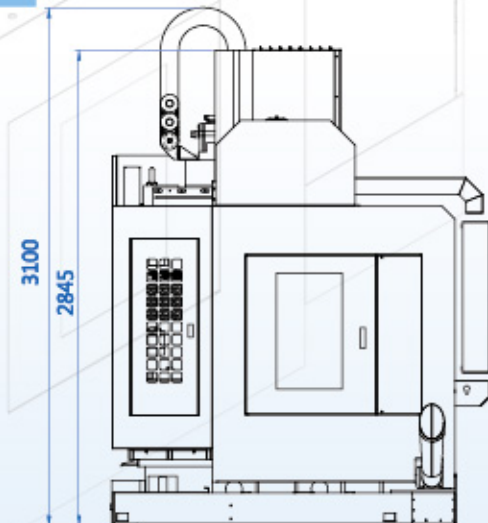
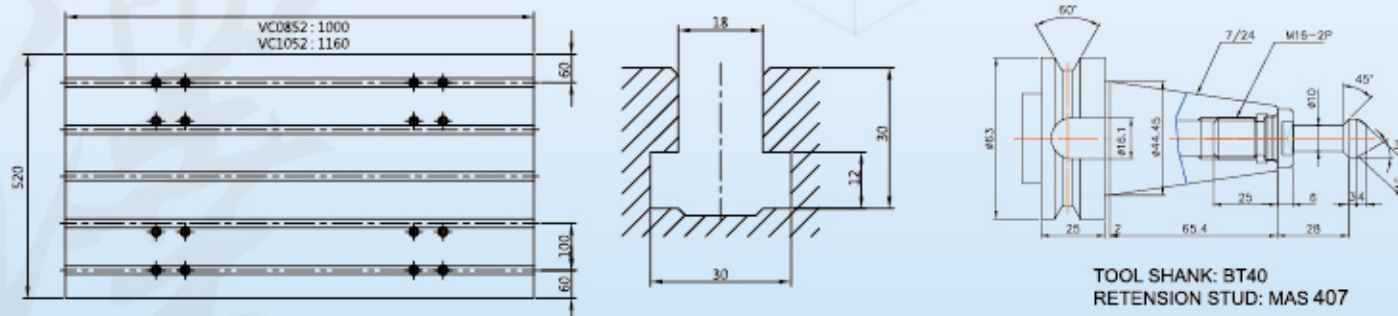


Table & T-slot Unit:mm



Specifications

Travel	Unit	VC0852	VC1052
X-axis	mm	860	1060
Y-axis	mm	520	520
Z-axis	mm	610	610
Dist. from spindle nose to table	mm	115~725	115~725
Dist. from spindle center to Z-axis guide way	mm	575	575
Table			
Dimension	mm	1000 x 520	1160 x 520
Max. load	kg	500	650
T-slot (width×pitch×number)	mm	18x100x5	18x100x5
Spindle			
Spindle type	—	Belt type	Belt type
Spindle speed	rpm	12,000	12,000
Motor power (cont./30 min)	kW	7.5/11	7.5/11
Spindle taper	—	BT40	BT40
Feed rate			
Rapid traverse (X/Y/Z)	MITSUBISHI SPEC.	m/min	48x48x36
	FANUC SPEC.(Opt.)	m/min	36x36x24
Cutting feedrate	mm/min	1~12000	1~12000
Motor power (X/Y/Z) MITSUBISHI SPEC.	kW	2.2/2.2/3.5	2.2/2.2/3.5
ATC & Magazine			
ATC type	—	Arm type	Arm type
Magazine capacity	pcs	24	24
Max. tool diameter	mm	80/150	80/150
Max. tool length	mm	300	300
Max. tool weight	kg	7	7
Tool shank	—	BT40	BT40
Pull stud	—	MAS 407	MAS 407
Space & System requirement			
Pneumatic pressure	kgf/cm ²	6	6
Electrical power consumption	kVA	30	30
Machine net weight	kg	5250	5500
Machine Dimensions (L xW x H)	mm	3900x3200x3200	4200x3200x3200

Standard Accessories

- ◆ MITSUBISHI M70A controller
- ◆ 12000rpm, BT40, belt type spindle
- ◆ 24T, BT40, Arm type
- ◆ Spindle air blast
- ◆ Cutting air blast
- ◆ Spindle oil cooler
- ◆ Cutting coolant system
- ◆ Automatic centralized lubrication system
- ◆ Chip auger with lift up exhaust tube
- ◆ Full enclosure
- ◆ Working lamp
- ◆ Indication lamp
- ◆ Washing gun & air gun
- ◆ Coolant flushing system
- ◆ Coolant tank & chip bucket
- ◆ Manual pulse generator (MPG)
- ◆ Ethernet & RS-232C interface
- ◆ Heat exchanger for electrical cabinet
- ◆ Tool kits
- ◆ Leveling bolts & pads
- ◆ Operation manuals
- ◆ One-year machine warranty (Spindle warranty upon spindle manufacturer)
- ◆ Controller warranty (Controller warranty upon Controller manufacturer)

Optional Accessories

- ◆ FANUC 0iMD controller
- ◆ 12000rpm, BT40, direct driven spindle
- ◆ Coolant through spindle
- ◆ Oil skimmer
- ◆ Oil mist device
- ◆ Oil mist collection
- ◆ Linear scales (3 axis)
- ◆ Roller type linear guide way
- ◆ Ballscrew cooling system
- ◆ Workpiece measurement system
- ◆ Tool length measurement system
- ◆ 4th axis rotary table
- ◆ Scraper type chip conveyor
- ◆ Chain type chip conveyor
- ◆ Transformer
- ◆ Coolant through tool adapter
- ◆ Tapping lubrication device
- ◆ CE (CE area only)

Specification are subject to change without notice

1.All data listed here are based on machines with standard accessories. Data will be altered according to different options.

For detailed information, please refer to local agents or Takumi sales.

2.Takumi reserves the rights on the modifications of the machine specifications.