



Vertical Machining Center



Product Catalog

KEEP TURNING THE WORLD



WEBSITE



LINE



WECHAT



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Agent / Distributor



Company Profile

About KFM KEEPWAY	04
History	05
Our Vision	06



Models

TL	07
TL Features (Linear)	09
TL-750	11
TL-1060	12
TL-1260	13
TL-1400/TLB-1400	14
Floor Space	15
Specification	17
TM	19
TL Features (Linear)	21
TM-900/1100/1100L	23
TM-1200/1300/1300G	24
TM-1500/1500G/1600/1600G	25
TM-1800/1800G/2000/2000G	27
Floor Space	29
Specification	31



**KEEP
TURNING
THE WORLD**

“KEEP TURNING THE WORLD”

About Us

KAIFENG MACHINERY CO., LTD. (KFM | KEEPWAY) is considered as one of the leading manufactures for machine tools in Taichung, Taiwan with four offices across the whole Asia region, including the head office in Taichung Industrial Park, Taiwan.

The current business scope covers Greater China, South East Asia, Middle East, Europe, North America and South America. With our persistent search of new technology and continuous innovation, KFM | KEEPWAY is your best partner with the most potential to work with.

Background and Development

Founded in 2002 and headquarter in Taiwan, KAIFENG MACHINERY CO., LTD. (KFM | KEEPWAY) is one of the biggest manufacturers for machine tools in the area. The company offers products and service of both CNC lathe (linear/box guideway) and vertical machining center (linear guideway). With the trend of going unmanned manufacturing and management due to the raising labor cost, we also offer automation options to better serve the needs of our clients.

Certificate / Patent

(KFM | KEEPWAY) has been trying to ensure the quality of our products to meet up with all the necessary international standards/qualifications. All the machine products are qualified with CE safety certification and numerous patents.



Connect us



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YouTube : Kaifeng Machinery



GooglePlus : keepway



Instagram : keepwaycnc

2002 Kaifeng Machinery

Kaifeng Machinery Co., Ltd was founded by Mr. Chiu in 2002 in Taichung, Taiwan. Mr. Chiu was at one point one of the biggest distributors of machine tools in Taiwan. He has a strong passion towards machine tools ever since he entered into this industry since 1980s and even to this day he still works persistently to provide more to our customers.

2003 Machining Center Development

Machining Center Development – KFM | KEEPWAY started the production line with the development of machining center while planning the development of lathe machine series on the side.

2005 CNC Turning Center Development

CNC Turning Centre Development – KFM | KEEPWAY started the production line with the focus on machining center product line while developing the lathe machine series on the side.

2012 Kaifeng Machinery 10th Year Anniversary

Kaifeng Machinery 10th Year Anniversary – Since 2002, KFM | KEEPWAY has developed over 20 different products. It has been quite a journey and yet we are still expanding our product line to meet the needs of our clients to this day.

2014 New Compact CNC Turning Centre Launched

Newly Launched Compact CNC Turning Centre Development – KT-16 is a machine with a compact floor space design to fulfill the needs of minimizing the floor space taken to as much as possible but not compromise the machine performance.

Global Market Coverage



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Our Vision

We believe in treating our customers with respect and faith. We grow through creativity, invention and innovation. We integrate honesty, integrity and business ethics into all aspects of our business management.

Our mission is to expand regionally in the field of CNC machine supplier and develop a strong base of key customers to be able to build good reputation in the field and become a key player in the industry globally.



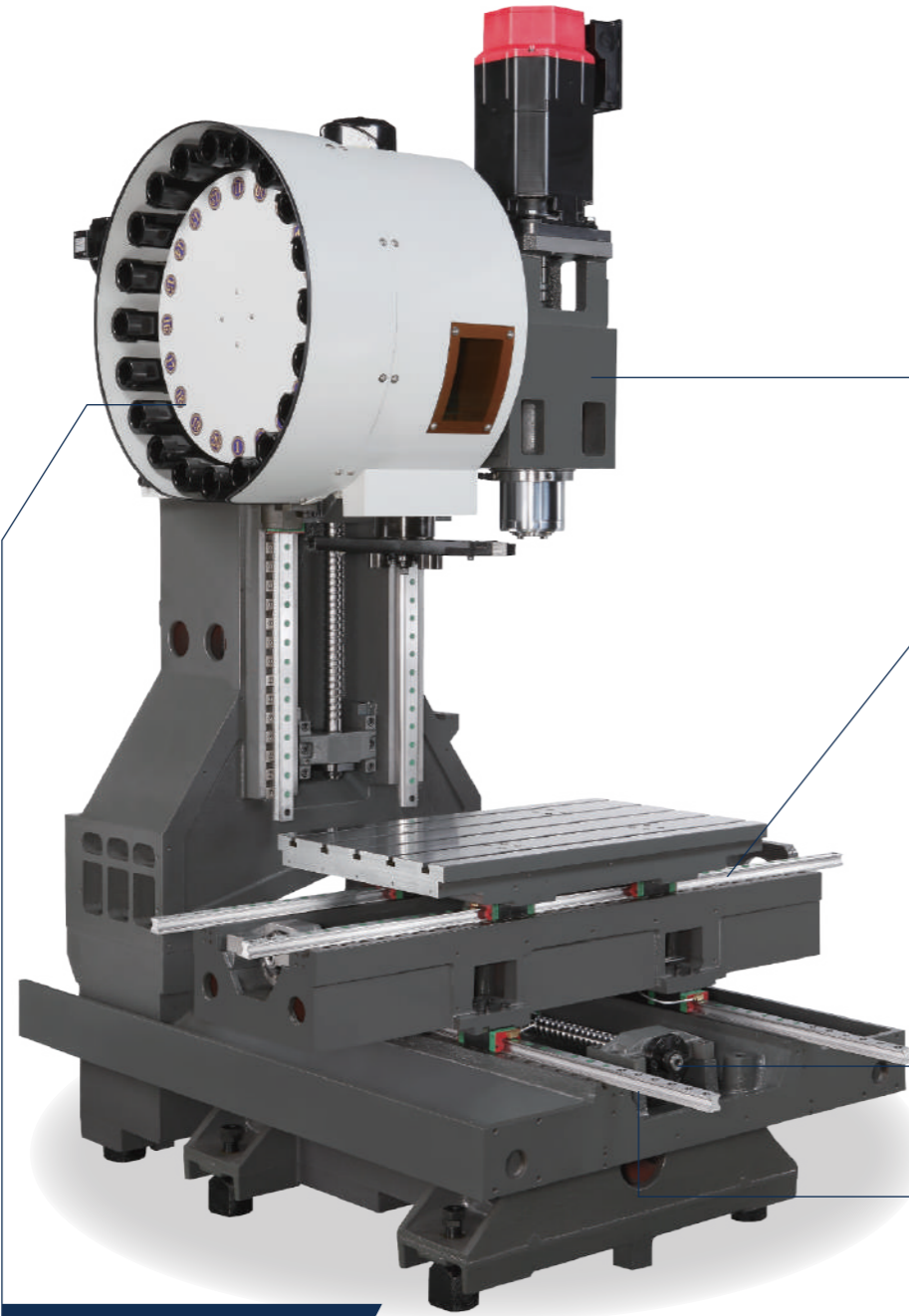


Machining Center

All products are equipped with high class ball screws to ensure high positioning accuracy. The ball screw pretension design is applied to all axes to effectively minimize the backlash compensation of the machine body needed. The repeatability and positioning accuracy is highly secured.

Structure

KFM | KEEPWAY insists to use MIT (Made In Taiwan) casting only to offer our users the best quality assurance. Lasting metal cutting precision accuracy and cutting tool life extension. Y-shaped interior design deliver a solid foundation and support to the accurate dynamism.



Tool Magazine

The use of arm type tool changer increase the productive time by shorting the tool changing time in both directions. All the machining centre products are equipped with 20T/24T arm-type tool magazine as standard.

Spindle

All the TL series products are equipped with direct driven spindle with the advantage of rapid wind up and down time. Efficient production with easier maintenance.

VMC (Linear)

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Ball Screw

All products are equipped with high class ball screws to ensure high positioning accuracy. The ball screw pretension design is applied to all axes to effectively minimize the backlash compensation of the machine body needed. The repeatability and positioning accuracy is highly secured.

Guideway

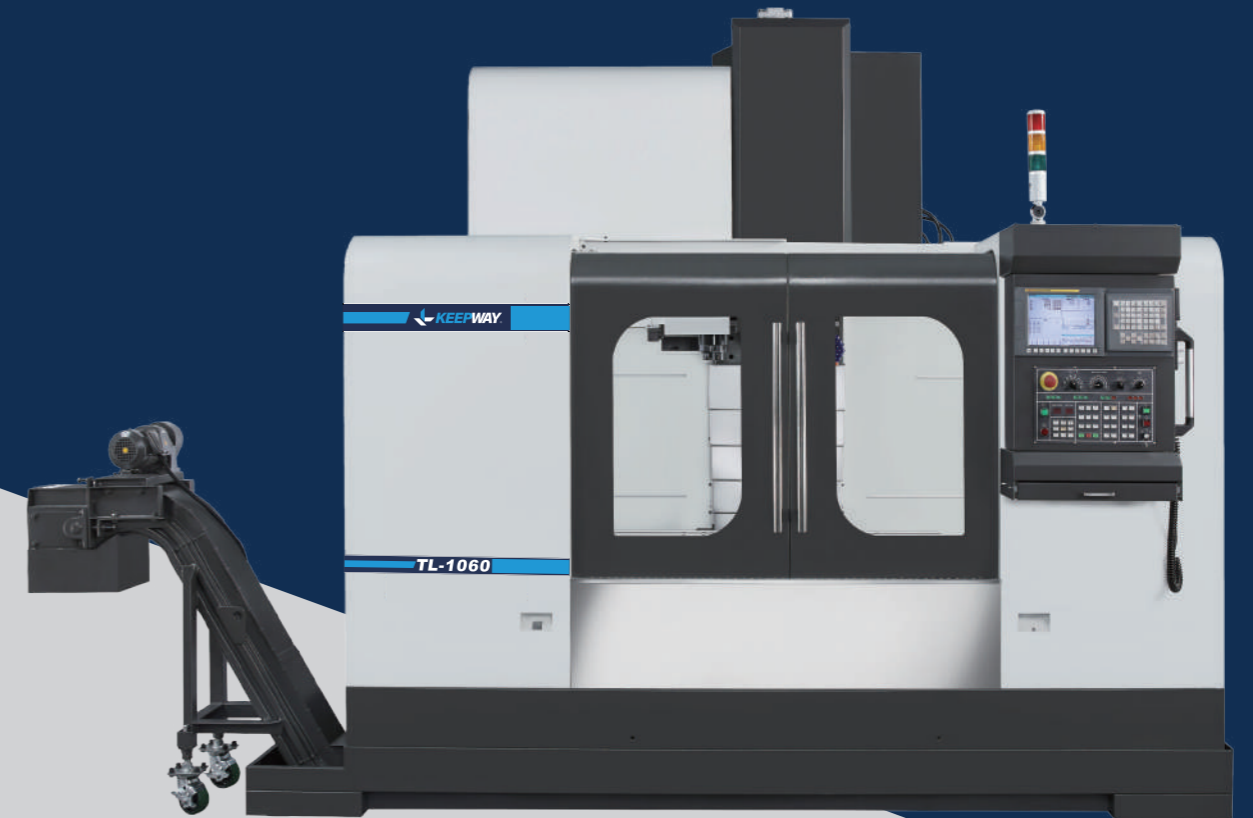
Roller type linear guideways are implemented for all the TL series products. With the equipment of rolling guideways, faster run times and the ability to hold tighter tolerance is secured. Less vibration damping is better conquered as roller-type guideways deflect less under repeated and varying loads. Less vibration improves cutting capacity and part surface finish, and results in longer tool life.



TL-750

Specification

Item	TL-750
Spindle driven type	Direct
Spindle speed	10,000rpm
Spindle taper	BT-40
Spindle motor	5.5/7.5kw
Spindle nose to table	100-600mm (3.9"-23.6")
X axis travel	750mm (29.5")
Y axis travel	500mm (19.7")
Z axis travel	500mm (19.7")
X/Y/Z cutting feed rate	36/36/36m/min
X/Y/Z rapid feed rate	10/10/10m/min
X/Y/Z axis guide width	30(4)/30(4)/35(4)
Table size	850x500mm (33.5"x19.7")
Max workpiece load	500kg
Tool changer	Arm
Tool magazine capacity	20T
Floor space (LxWxH)	2621x2630x2496mm
Machine weight	4000kg



TL-1060

Specification

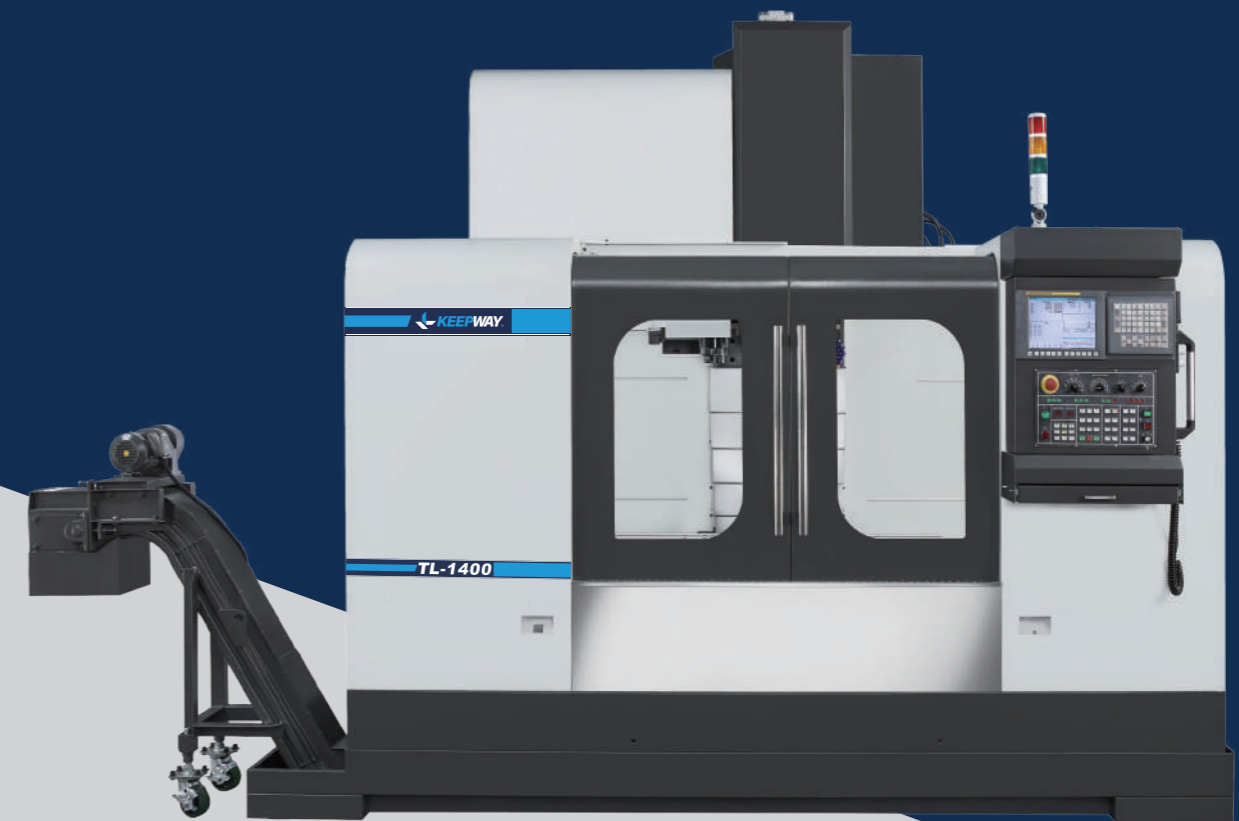
Item	TL-1060
Spindle driven type	Direct
Spindle speed	10,000rpm
Spindle taper	BT-40
Spindle motor	7.5/11kw
Spindle nose to table	120-720mm (4.7"-28.4")
X axis travel	1000mm (39.4")
Y axis travel	600mm (23.6")
Z axis travel	600mm (23.6")
X/Y/Z cutting feed rate	36/36/24m/min
X/Y/Z rapid feed rate	10/10/10m/min
X/Y/Z axis guide width	35(4)/45(4)/45(6)
Table size	1100x600mm (43.3"x23.6")
Max workpiece load	700kg
Tool changer	Arm
Tool magazine capacity	24T
Floor space (LxWxH)	2660x2380x2883mm
Machine weight	6400kg



TL-1260

Specification

Item	TL-1260
Spindle driven type	Direct
Spindle speed	10,000rpm
Spindle taper	BT-40
Spindle motor	11/15kw
Spindle nose to table	120-720mm (4.7"-28.4")
X axis travel	1200mm (47.2")
Y axis travel	600mm (23.6")
Z axis travel	600mm (23.6")
X/Y/Z cutting feed rate	36/36/24m/min
X/Y/Z rapid feed rate	10/10/10m/min
X/Y/Z axis guide width	45(4)/45(4)/45(6)
Table size	1300x600mm (51.2"x23.6")
Max workpiece load	700kg
Tool changer	Arm
Tool magazine capacity	24T
Floor space (LxWxH)	3030x2597x2878mm
Machine weight	6600kg



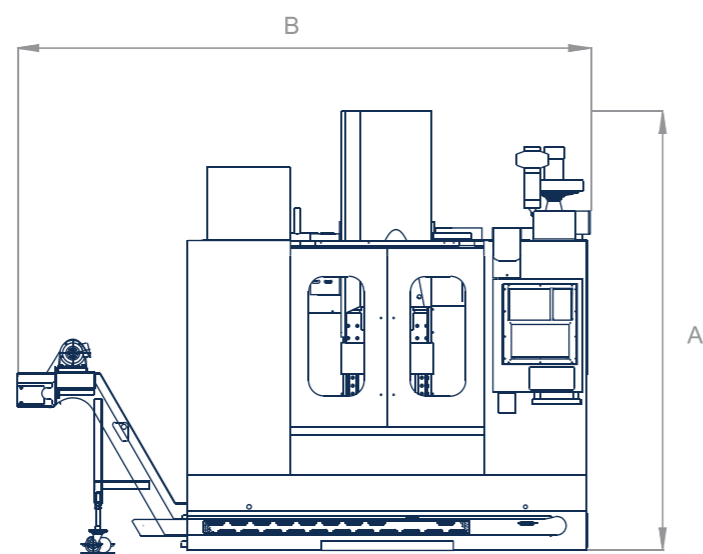
TL-1400 / TLB-1400

Specification

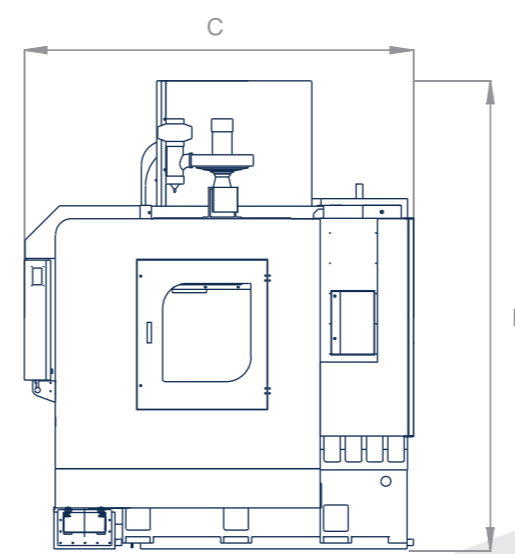
Item	TL-1400	TLB-1400
Spindle driven type	Belt	Belt
Spindle speed	10,000rpm	10,000rpm
Spindle taper	BT-40	BT-50
Spindle motor	11/15kw	15/18.5kw
Spindle nose to table	120-820mm (4.7"-32.3")	120-770mm (4.7"-30.3")
X axis travel	1400mm (55.1")	1400mm (55.1")
Y axis travel	750mm (29.5")	750mm (29.5")
Z axis travel	700mm (27.6")	650mm (25.6")
X/Y/Z cutting feed rate	10/10/10m/min	10/10/10m/min
X/Y/Z rapid feed rate	30/30/30m/min	30/30/20m/min
X/Y/Z axis guide width	45/45/45mm	45/45/45mm
Table size	1500x750mm (59"x29.5")	1500x750mm (59"x29.5")
Max workpiece load	1200kg	1200kg
Tool changer	Arm	Arm
Tool magazine capacity	24T	24T
Floor space (LxWxH)	4500x2900x3000mm	4500x2900x3000mm
Machine weight	10000kg	10000kg

Floor Space

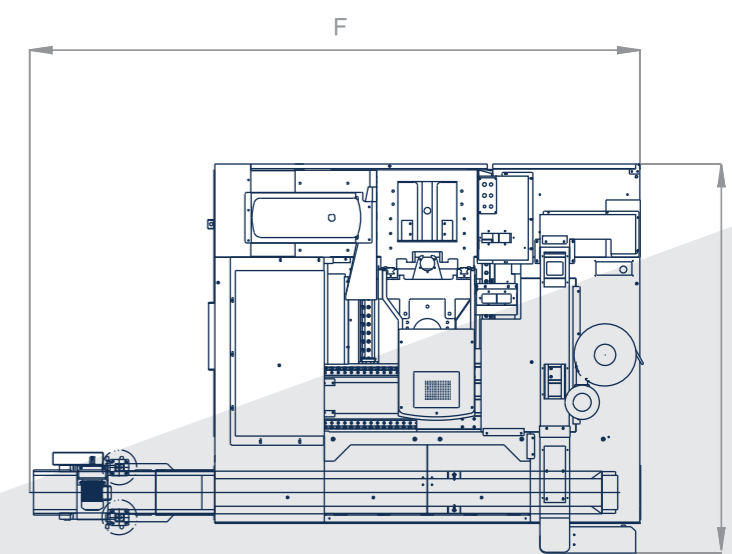
New Generation KFM | KEEPWAY machining centers were designed to be extremely rigid with high accuracy. The castings were more by using finite element analysis (FEA) to bring out the best cutting performance. We strive for the better for our customers, through constant research and product refinement, KFM | KEEPWAY is your best partner with the most potential to work with.



Front



Side



Top

Specification

Item	TL-750	TL-1060	TL-1260	TL-1400	TLB-1400
A	2496 mm	2883 mm	2878 mm	3000 mm	3000 mm
B	2621 mm	2660 mm	3030 mm	4500 mm	4500 mm
C	2496 mm	2883 mm	2878 mm	2900 mm	2900 mm
D	2630 mm	2380 mm	2597 mm	3000 mm	3000 mm
E	2665 mm	3255 mm	3428 mm	2900 mm	2900 mm
F	2589 mm	2600 mm	3030 mm	4500 mm	4500 mm

ITEM	UNIT	TL-750	TL-1060	TL-1260	TL-1400	TLB-1400
Controller	-	Fanuc 0i-MF Plus	Fanuc 0i-MF Plus	Fanuc 0i-MF Plus	Fanuc 0i-MF Plus	Fanuc 0i-MF Plus
Spindle motor	kw	5.5/7.5	7.5/11	11/15	11/15	15/18.5
X/Y/Z axis motor	kw	1.8/1.8/2.5	2.5/2.5/2.5	4/4/4	3.0/3.0/3.0	3.0/3.0/3.0
Coolant pump motor	w	600	600	600	750	750
Magazine motor	w	400	400	400	400	400
Chip conveyor motor	w	600	600	600	1000	1000
Spindle driven type	-	Direct	Direct	Direct	Belt	Belt
Spindle speed	rpm	10,000	10,000	10,000	10,000	8,000
Spindle taper	BT	BT-40	BT-40	BT-40	BT-40	BT-50
Spindle diameter	mm	Φ120	Φ150	Φ150	Φ150	Φ155
Spindle bearing grade	-	P4	P4	P4	P4	P4
X axis travel	mm	750 (29.5")	1000 (39.4")	1200 (47.2")	1400 (55.1")	1400 (55.1")
Y axis travel	mm	500 (19.7")	600 (23.6")	600 (23.6")	750 (29.5")	750 (29.5")
Z axis travel	mm	500 (19.7")	600 (23.6")	600 (23.6")	700 (27.6")	650 (25.6")
Spindle nose to table	mm	100-600 (3.9"-23.6")	120-720 (4.7"-28.4")	120-720 (4.7"-28.4")	120-820 (4.7"-32.3")	120-770 (4.7"-30.3")
Spindle center to z-rail	mm	580 (22.83")	700 (27.56)	700 (27.56)	830 (32.7")	830 (32.7")
Ballscrew grade	-	C3	C3	C3	C3	C3
X/Y/Z ballscrew	-	Φ40xP16	X:Φ40xP12 Y:Φ45xP12	Φ45xP12	Φ45x10P	Φ45x10P
X/Y/Z linear guideway	-	30(4)/30(4)/35(4)	35(4)/45(4)/45(6)	45(4)/45(4)/45(6)	45x2(6)/45x4(8)/45x2(6)	45x2(6)/45x4(8)/Box
X/Y/Z cutting feed rate	mm	36/36/36	36/36/24	36/36/24	30/30/30	30/30/20
X/Y/Z rapid feed rate	mm	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10
Table size	mm	850x500 (33.5"x19.7")	1100x600 (43.3"x23.6")	1300x600 (51.2"x23.6")	1500x750 (55.1"x29.5")	1500x750 (55.1"x29.5")
T-slot (numberxwidthxpitch)	mm	5x14x100 (5x0.5"x3.9")	5x18x100 (5x0.7"x3.9")	5x18x100 (5x0.7"x3.9")	5x18x150 (5x0.7"x5.9")	5x18x150 (5x0.7"x5.9")
Maximum table load	kg	500	700	700	1200	1200
Magazine type	-	Arm	Arm	Arm	Arm	Arm
Tool capacity	pcs	20	24	24	24	24
Tool selection	-	Two-way Selection	Two-way Selection	Two-way Selection	Two-way Selection	Two-way Selection
Maximum tool length/ diameter	mm	Φ150x300	Φ150x250	Φ150x250	Φ150x300 (Φ78x300)	Φ220x350 (Φ110x350)
Maximum tool weight	kg	7	7	7	8	15
Tool shank	degree	45 (90)	45 (90)	45 (90)	45 (90)	45 (90)
Chip conveyor	-	Dual Screw	Belt Type	Belt Type	OPT	OPT
Air pressure	kg/cm ²	≥ 6.5	≥ 6.5	≥ 6.5	≥ 6.5	≥ 6.5
Power voltage	V	220/380	220/380	220/380	220/380	220/380
Power capacity	KVA	N/A	N/A	N/A	23	27
Floor space (LxWxH)	mm	2621x2630x2496	2660x2380x2883	3030x2597x2878	4500x2900x3000	4500x2900x3000
Machine weight	kg	4000	6400	6600	10000	10000

Standard Accessories

ITEM
Fanuc 0i-MF Plus controller 10.4" LCD display
RS232 interface connector
Part program storage size 2 MB
BT-40 belt/direct drive spindle
Rigid tapping
High pressure coolant system
Spindle coolant system
Spindle air blast system
Tool magazine (arm type)
T-slot work table
Heat exchanger for electrical cabinet
M30 auto power off system
LED work light
MPG hand wheel
Chip conveyor and chip cart
Foundation leveling pads
Fully enclosed guarding
Advanced auto lubrication system
Coolant pump
Three color warning work light
Maintenance tool kit
Operation & maintenance manuals
2-years warranty on FANUC controller
1-year warranty on KFM KEEPWAY machine parts

Optional Accessories

ITEM
Fanuc 0i-MF Plus controller
Mitsubishi M80A controller
Siemens controller
Data server
Spindle speed 12,000rpm (direct driven)
Spindle speed 15,000rpm (direct driven)
Coolant through spindle (20bar)
Coolant through spindle (30bar)
Tool presetter TS27R (Japan)
Auto workpiece measurement OMP60 (Japan)
Single scw conveyor
Rotary table (Φ170)
Rotary table (Φ250)
Rotary table (Φ320)
Oil mist collector
Oil and water seperator
A/C cooling system for electrical cabinet
Regulator transfromer 25KVA
Regulator transfromer 30KVA

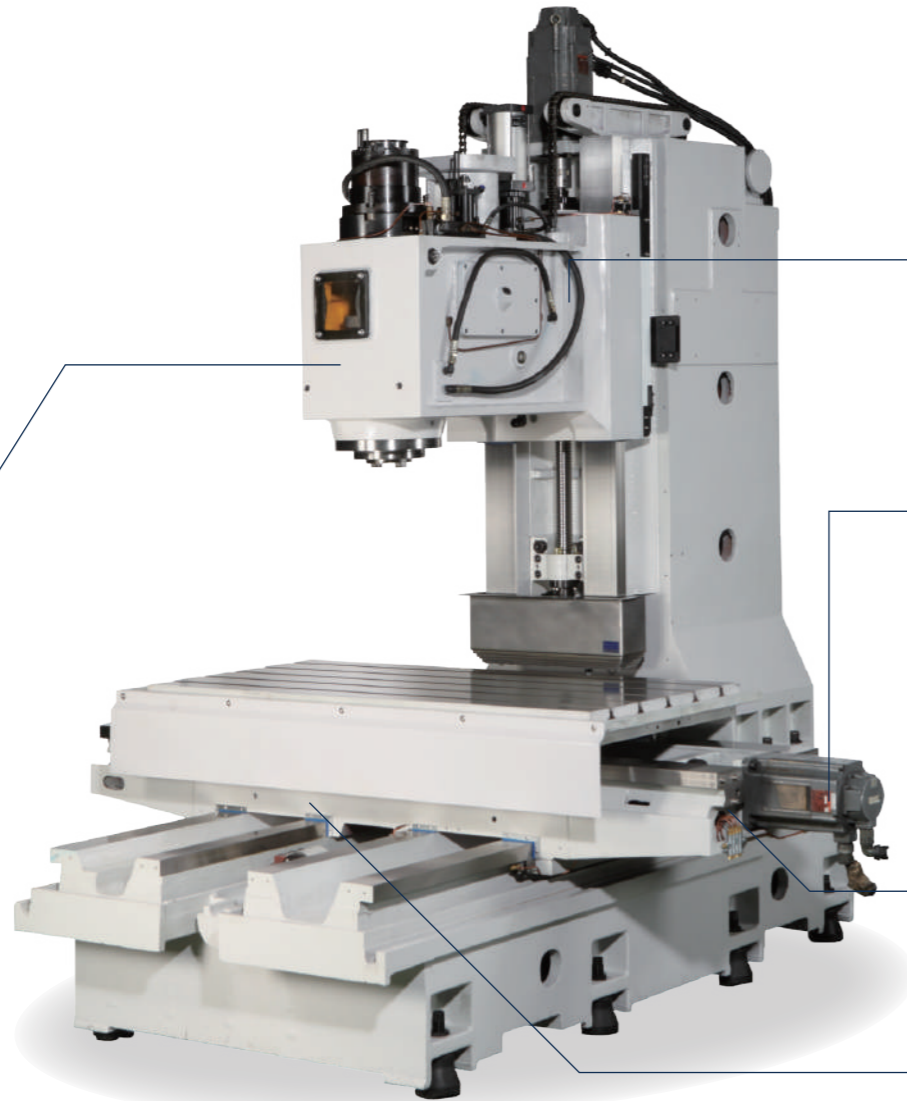


Machining Center

All products are equipped with high class ball screws to ensure high positioning accuracy. The ball screw pretension design is applied to all axes to effectively minimize the backlash compensation of the machine body needed. The repeatability and positioning accuracy is highly secured.

Structure

KFM | KEEPWAY insists to use MIT (Made In Taiwan) casting only to offer our users the best quality assurance. Lasting metal cutting precision accuracy and cutting tool life extension. Y-shaped interior design deliver a solid foundation and support to the accurate dynamism.



Tool Magazine

The use of arm type tool changer increase the productive time by shorting the tool changing time in both direction. All the machining centre products are equipped with 24T arm-type tool magazine as standard.

Spindle

Belt type spindle, as the spindle itself is comprised of a few basic parts, the cost is relatively low, when compared to direct spindles. High power and torque is still offered to suit a variety of production needs.

VMC (Boxway)

With over twenty years' experience in vertical machining center production, we have managed to provide our clients with a high rigidity machine tool for efficient heavy cutting. Broad worktable surface not only offers diversity in processing your work piece, but also saves the time taken in uploading and unloading the product.

Ball Screw

All products are equipped with high class ball screws to ensure high positioning accuracy. The ball screw pretension design is applied to all axes to effectively minimize the backlash compensation of the machine body needed. The repeatability and positioning accuracy is highly secured.

Hand-Scraped Technique

Hand-scraped procedure is applied to contacting surfaces through all the guide way slides, headstock, turret and tailstock. The ultimate assembling precision, structural rigidity, and balanced loading distribution are secured.



TM-900 / TM-1100 / TM-1100L

Specification

Item	TM-900	TM-1100	TM-1100L
Spindle driven type	Belt	Belt	Belt
Spindle speed	8,000 rpm	8,000 rpm	8,000 rpm
Spindle taper	BT-40	BT-40	BT-40
Spindle drive motor	7.5/11 kw	7.5/11 kw	7.5/11 kw
Spindle to worktable	150-760 mm 5.91-29.92 inch	150-760 mm 5.91-29.92 inch	150-760 mm 5.91-29.92 inch
X-axis travel	900 mm 35.43 inch	1100 mm 43.31 inch	1100 mm 43.31 inch
Y-axis travel	610 mm 24.02 inch	610 mm 24.02 inch	720 mm 28.34 inch
Z-axis travel	610 mm 24.02 inch	610 mm 24.02 inch	610 mm 24.02 inch
Cutting feed rate	12 (0.47) m/min	12 (0.47) m/min	12 (0.47) m/min
Rapid feed rate	18x18x15 m/min	18x18x15 m/min	18x18x15 m/min
3-axis guide width (X/Y/Z)	120/100/100 mm 4.72/3.94/4.72 inch	120/100/100 mm 4.72/3.94/3.94 inch	120/100/120 mm 4.72/3.94/4.72 inch
Surface (LxW)	950x610 mm 37.4x24.02 inch	1150x610 mm 45.28x24.02 inch	1300x700 mm 51.18x27.56 inch
Maximum workpiece load	900 kg	1000 kg	1200 kg
Tool changer	Arm	Arm	Arm
Tool magazine capacity	24T	24T	24T
Floor space (LxWxH)	3390x2900x2585 mm	3490x2900x2585 mm	3490x3030x2585 mm
Machine weight	7500 kg	8000 kg	9500 kg



TM-1200 / TM-1300 / TM-1300G

Specification

Item	TM-1200	TM-1300	TM-1300G
Spindle driven type	Belt	Belt	Gear
Spindle speed	8,000 rpm	8,000 rpm	6,000 rpm
Spindle taper	BT-40	BT-40	BT-50
Spindle drive motor	7.5/11 kw	11/15 kw	11/15 kw
Spindle to worktable	150-760 mm 5.91-29.92 inch	150-760 mm 5.91-29.92 inch	150-830 mm 5.91-32.68 inch
X-axis travel	1200 mm 47.25 inch	1300 mm 51.18 inch	1300 mm 51.18 inch
Y-axis travel	720 mm 28.34 inch	720 mm 28.34 inch	720 mm 28.34 inch
Z-axis travel	610 mm 24.02 inch	610 mm 24.02 inch	680 mm 26.77 inch
Cutting feed rate	10 (0.39) m/min	10 (0.39) m/min	10 (0.39) m/min
Rapid feed rate	15x15x12 m/min	15x15x12 m/min	15x15x12 m/min
3-axis guide width (X/Y/Z)	120/100/120 mm 4.72/3.94/4.72 inch	120/100/120 mm 4.72/3.94/4.72 inch	120/100/120 mm 4.72/3.94/4.72 inch
Surface (LxW)	1350x700 mm 53.15x27.56 inch	1550x700 mm 61.02x27.56 inch	1550x700 mm 61.02x27.56 inch
Maximum workpiece load	1300 kg	1400 kg	1400 kg
Tool changer	Arm	Arm	Arm
Tool magazine capacity	24T	24T	24T
Floor space (LxWxH)	3490x3030x2585 mm	3590x3030x2585 mm	3590x3030x2685 mm
Machine weight	9700 kg	9900 kg	10400 kg

TM-1500 / TM-1500G

Specification

Item	TM-1500	TM-1500G
Spindle driven type	Belt	Gear
Spindle speed	8,000 rpm	6,000 rpm
Spindle taper	BT-40	BT-50
Spindle drive motor	15/18.5 kw	15/18.5 kw
Spindle to worktable	150-760 mm 5.91-29.92 inch	150-830 mm 5.91-32.68 inch
X-axis travel	1500 mm 59.05 inch	1500 mm 59.05 inch
Y-axis travel	720 mm 28.34 inch	720 mm 28.34 inch
Z-axis travel	610 mm 24.02 inch	680 mm 26.77 inch
Cutting feed rate	10 (0.39) m/min	10 (0.39) m/min
Rapid feed rate	15x15x12 m/min	15x15x12 m/min
3-axis guide width (X/Y/Z)	120/100/120 mm 4.72/3.94/4.72 inch	120/100/120 mm 4.72/3.94/4.72 inch
Surface (LxW)	1550x700 mm 61.02x27.56 inch	1550x700 mm 61.02x27.56 inch
Maximum workpiece load	1500 kg	1500 kg
Tool changer	Arm	Arm
Tool magazine capacity	24T	24T
Floor space (LxWxH)	3800x3030x2585 mm	3800x3030x2685 mm
Machine weight	10100 kg	10600 kg

TM-1600 / TM-1600G

Specification

Item	TM-1600	TM-1600G
Spindle driven type	Belt	Gear
Spindle speed	8,000 rpm	6,000 rpm
Spindle taper	BT-40	BT-50
Spindle drive motor	15/22 kw	15/22 kw
Spindle to worktable	150-900 mm 5.91-35.43 inch	150-900 mm 5.91-35.43 inch
X-axis travel	1600 mm 62.99 inch	1600 mm 62.99 inch
Y-axis travel	850 mm 33.46 inch	850 mm 33.46 inch
Z-axis travel	750 mm 29.53 inch	750 mm 29.53 inch
Cutting feed rate	10 (0.39) m/min	10 (0.39) m/min
Rapid feed rate	12x12x10 m/min	12x12x10 m/min
3-axis guide width (X/Y/Z)	120/150/125 mm 4.72/5.91/4.92 inch	120/150/125 mm 4.72/5.91/4.92 inch
Surface (LxW)	1700x700 mm 66.93x27.56 inch	1700x700 mm 66.93x27.56 inch
Maximum workpiece load	1800 kg	1800 kg
Tool changer	Arm	Arm
Tool magazine capacity	24T	24T
Floor space (LxWxH)	4450x3030x3200 mm	4450x3030x3200 mm
Machine weight	13500 kg	13700 kg



TM-1800 / TM-1800G

Specification

Item	TM-1800	TM-1800G
Spindle driven type	Belt	Gear
Spindle speed	8,000 rpm	6,000 rpm
Spindle taper	BT-40	BT-50
Spindle drive motor	15/22 kw	15/22 kw
Spindle to worktable	150-900 mm 5.91-35.43 inch	150-900 mm 5.91-35.43 inch
X-axis travel	1800 mm 70.87 inch	1800 mm 70.87 inch
Y-axis travel	850 mm 33.46 inch	850 mm 33.46 inch
Z-axis travel	750 mm 29.53 inch	750 mm 29.53 inch
Cutting feed rate	10 (0.39) m/min	10 (0.39) m/min
Rapid feed rate	12x12x10 m/min	12x12x10 m/min
3-axis guide width (X/Y/Z)	120/150/125 mm 4.72/5.91/4.92 inch	120/150/125 mm 4.72/5.91/4.92 inch
Surface (LxW)	1900x800 mm 74.80x31.50 inch	1900x800 mm 74.80x31.50 inch
Maximum workpiece load	2200 kg	2200 kg
Tool changer	Arm	Arm
Tool magazine capacity	24T	24T
Floor space (LxWxH)	4550x3030x3200 mm	4550x3030x3200 mm
Machine weight	14050 kg	14250 kg

TM-2000 / TM-2000G

Specification

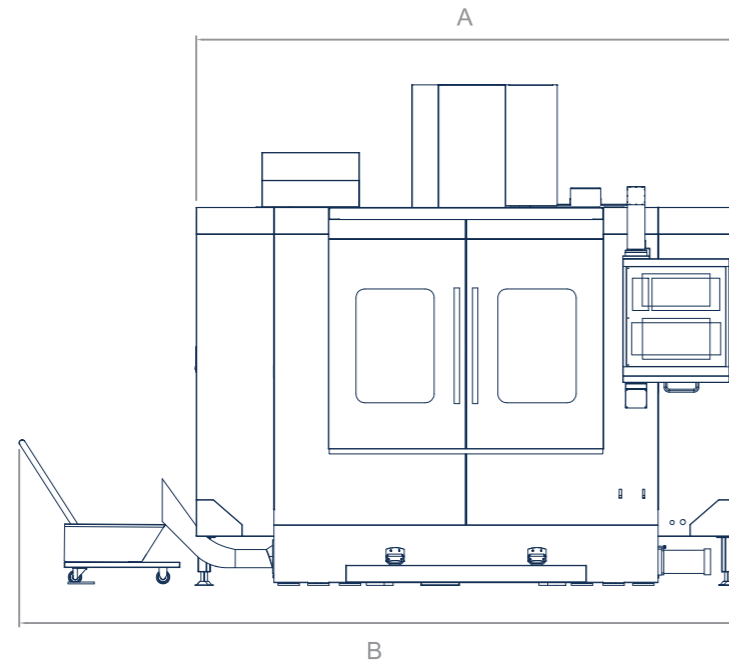
Item	TM-2000	TM-2000G
Spindle driven type	Belt	Gear
Spindle speed	8,000 rpm	6,000 rpm
Spindle taper	BT-40	BT-50
Spindle drive motor	15/22 kw	15/22 kw
Spindle to worktable	150-900 mm 5.91-35.43 inch	150-900 mm 5.91-35.43 inch
X-axis travel	2000 mm 78.74 inch	1800 mm 70.87 inch
Y-axis travel	850 mm 33.46 inch	850 mm 33.46 inch
Z-axis travel	750 mm 29.53 inch	750 mm 29.53 inch
Cutting feed rate	10 (0.39) m/min	10 (0.39) m/min
Rapid feed rate	12x12x10 m/min	12x12x10 m/min
3-axis guide width (X/Y/Z)	120/150/125 mm 4.72/5.91/4.92 inch	120/150/125 mm 4.72/5.91/4.92 inch
Surface (LxW)	2100x800 mm 82.68x31.50 inch	1900x800 mm 74.80x31.50 inch
Maximum workpiece load	2400kg	2400 kg
Tool changer	Arm	Arm
Tool magazine capacity	24T	24T
Floor space (LxWxH)	4550x3030x3200 mm	4550x3030x3200 mm
Machine weight	14300 kg	14500 kg



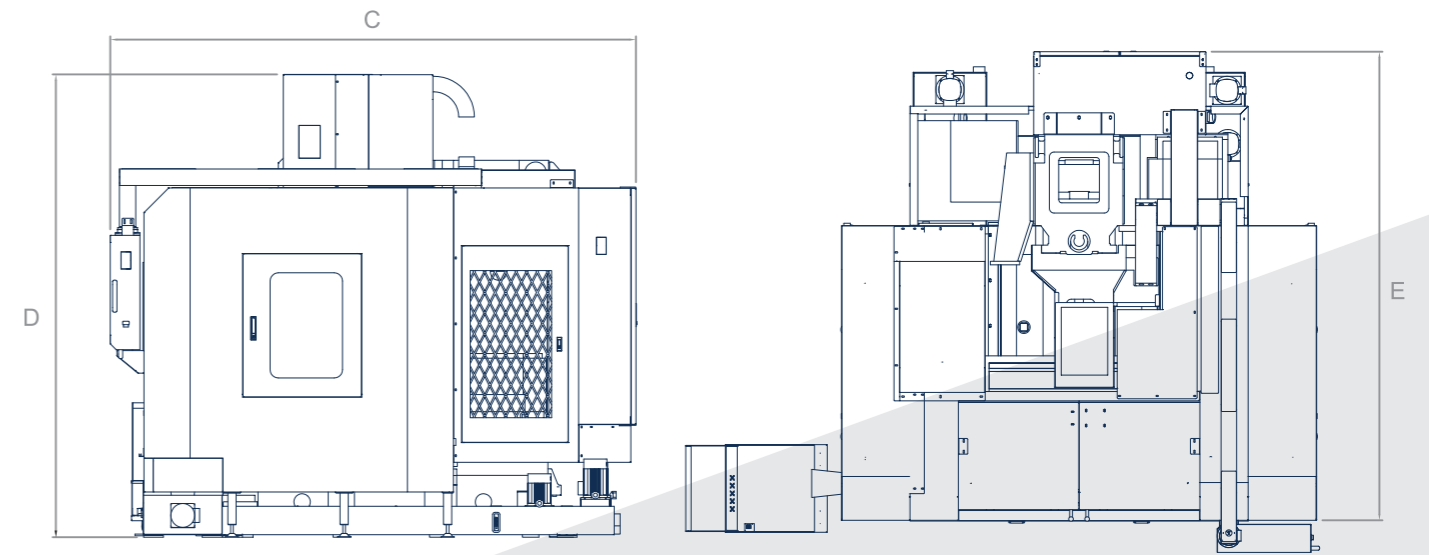
Floor Space

Floor Space

New Generation KFM | KEEPWAY machining center were designed to be extremely rigid with high accuracy. The castings were optimised more by using finite element analysis (FEA) to bring out the best cutting performance. We strive for the better for our customers, through constant research and product refinement, KFM | KEEPWAY is your best partner with the most potential to work with. This is a series of machining center machines with compact design and the best user experience.



Front



Side

Top

Specification

Item	TM-900	TM-1100	TM-1100L
A	2935 mm	3035 mm	3035 mm
B	3935 mm	4035 mm	4035 mm
C	3200 mm	3200 mm	3200 mm
D	2850 mm	2850 mm	2850 mm
E	3000 mm	3000 mm	3000 mm

Item	TM-1500	TM-1500G	TM-1600	TM-1600G
A	4695 mm	4695 mm	4915 mm	4915 mm
B	5340 mm	5340 mm	5560 mm	5560 mm
C	3810 mm	3810 mm	3810 mm	3810 mm
D	2880 mm	2950 mm	3500 mm	3500 mm
E	3220 mm	3220 mm	3260 mm	3260 mm

Specification

Item	TM-1200	TM-1300	TM-1300G
A	4395 mm	4495 mm	4495 mm
B	5040 mm	5140 mm	5140 mm
C	3810 mm	3810 mm	3810 mm
D	2880 mm	2880 mm	2880 mm
E	3220 mm	3220 mm	3220 mm

Item	TM-1800	TM-1800G	TM-2000	TM-2000G
A	5115 mm	5115 mm	5315 mm	5315 mm
B	5760 mm	5760 mm	5760 mm	5960 mm
C	3810 mm	3810 mm	3810 mm	3810 mm
D	3500 mm	3500 mm	3500 mm	3500 mm
E	3260 mm	3260 mm	3260 mm	3260 mm

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ITEM	UNIT	TM-900	TM-1100	TM-1100L	TM-1200	TM-1300	TM-1300G	TM-1500
Spindle motor	kw	11/15	11/15	11/15	11/15	11/15	11/15	15/18.5
X/Y/Z axis motor	kw	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	3.0/3.0/3.0	4.0/4.0/4.0	4.0/4.0/4.0	4.0/4.0/4.0
Coolant pump motor	w	750	750	750	750	750	750	750
Magazine motor	w	200	200	200	200	200	200	200
Chip conveyor motor	w	1000	1000	1000	1000	1000	1000	1000
Spindle driven type	-	Belt	Belt	Belt	Belt	Belt	Belt	Belt
Spindle speed	rpm	8,000	8,000	8,000	8,000	8,000	6,000	8,000
Spindle taper	BT	BT-40	BT-40	BT-40	BT-40	BT-40	BT-50	BT-40
Spindle diameter	mm (inch)	Φ150	Φ150	Φ150	Φ150	Φ150	Φ150	Φ150
Spindle bearing grade	-	P4	P4	P4	P4	P4	P4	P4
X axis travel	mm (inch)	900 (35.43)	1100 (43.3)	1100 (43.3)	1200 (47.2)	1300 (51.2)	1300 (51.2)	1500 (59.1)
Y axis travel	mm (inch)	610 (24.02)	610 (24.0)	720 (28.3)	720 (28.3)	720 (28.3)	720 (28.3)	720 (28.35)
Z axis travel	mm (inch)	610 (24.02)	610 (24.0)	610 (24.0)	610 (24.0)	610 (24.0)	680 (26.8)	610 (24.0)
Spindle nose to table	mm (inch)	150-760 (5.91-29.92)	150-760 (5.9-30.0)	150-760 (5.9-30.0)	150-760 (5.9-30.0)	150-760 (5.9-30.0)	150-830 (5.9-32.7)	150-760 (5.9-30.0)
Spindle center to z-rail	mm (inch)	695	695	745	745	745	745	745
Ballscrew grade	-	C3	C3	C3	C3	C3	C3	C3
X/Y/Z ballscrew	mm	Φ40xΦ40xΦ40 (P10)	Φ40xΦ40xΦ40 (P10)	Φ40xΦ50xΦ40 (P10)	Φ40xΦ50xΦ40 (P10)	Φ50xΦ50xΦ40 (P10)	Φ50xΦ50xΦ50 (P10)	Φ50xΦ50xΦ40 (P10)
X/Y/Z linear guideway	mm (inch)	X:120/Y:100/Z:100	120/100/100	120/100/120	120/100/120	120/100/120	120/100/120	120/100/120
X/Y/Z cutting feed rate	m/min	12/12/12	12	12	10	10	10	10
X/Y/Z rapid feed rate	m/min	18/18/15	18x18x15	18x18x15	15x15x12	15x15x12	15x15x12	15x15x12
Table size	mm (inch)	950x610 (37.4x24.02)	1150x610 (45.3x24.0)	1300x700 (51.2x27.6)	1350x700 (53.1x27.6)	1550x700 (61.0x27.6)	1550x700 (61.0x27.6)	1550x700 (61.0x27.6)
T-slot (numberxwidthxpitch)	mm (inch)	5x18x130	5x18x130 (5x0.7x5.1)	5x18x130 (5x0.7x5.1)	5x18x130 (5x0.7x5.1)	5x18x130 (5x0.7x5.1)	5x18x130 (5x0.7x5.1)	5x18x130 (5x0.7x5.1)
Maximum table load	kg	900	1000	1200	1300	1400	1400	1500
Magazine type	type	Arm	Arm	Arm	Arm	Arm	Arm	Arm
Tool capacity	pcs	24T	24T	24T	24T	24T	24T	24T
Tool selection	-	Two-way selection	Two-way selection	Two-way selection	Two-way selection	Two-way selection	Two-way selection	Two-way selection
Maximum tool length	mm (inch)	300	300 (11.8)	300 (11.8)	300 (11.8)	300 (11.8)	400 (15.7)	300 (11.8)
Tool diameter	mm (inch)	Φ80/Φ160	Φ80 (Φ160 heavy tool)	Φ80 (Φ160 heavy tool)	Φ80 (Φ160 heavy tool)	Φ80 (Φ160 heavy tool)	Φ127 (Φ200 heavy tool)	Φ80 (Φ160 heavy tool)
Maximum tool weight	kg	8	8	8	8	8	8	8
Tool shank	degree	45	45	45	45	45	45	45
Chip conveyor	-	Scew	Scew	Scew	Scew	Scew	Scew	Scew
Air pressure	kg/cm ²	7~8	7~8	7~8	7~8	7~8	7~8	7~8
Power voltage	voltage	220V/380V	220V/380V	220V/380V	220V/380V	220V/380V	220V/380V	220V/380V
Power capacity	KVA	20	20	25	25	25	30	30
Floor space (LxWxH)	mm (inch)	3390x2900x2585	3490x2900x2585	3490x3030x2585	3490x3030x2585	3590x3030x2585	3590x3030x2685	3800x3030x2585
Machine weight	kg	7500	8000	9500	9700	9900	10400	10100

Standard Accessories

ITEM	TM-900	TM-1100	TM-1100L	TM-1200	TM-1300	TM-1300G	TM-1500
Water gun	v	v	v	v	v	v	v
Air gun	v	v	v	v	v	v	v
Tool kit	v	v	v	v	v	v	v
Leveling pads	v	v	v	v	v	v	v
Operation manual	v	v	v	v	v	v	v
Controller warranty	v	v	v	v	v	v	v
Machine parts warranty	v	v	v	v	v	v	v

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ITEM	UNIT	TM-1500G	TM-1600	TM-1600G	TM-1800	TM-1800G	TM-2000	TM-2000G
Spindle motor		15.18.5	15/18.5	15/18.5	15/18.5	15/18.5	15/18.5	15/18.5
X/Y/Z axis motor		4.0/4.0/4.0	4.0/4.0/4.0	4.0/4.0/4.0	4.0/4.0/4.0	4.0/4.0/4.0	4.0/4.0/4.0	4.0/4.0/4.0
Coolant pump motor		750	750	750	750	750	750	750
Magazine motor		200	200	200	200	200	200	200
Chip conveyor motor		1000	1000	1000	1000	1000	1000	1000
Spindle driven type		Gear	Belt	Gear	Belt	Gear	Belt	Gear
Spindle speed		6,000	8,000	6,000	8,000	6,000	8,000	6,000
Spindle taper		BT-50	BT-40	BT-50	BT-40	BT-50	BT-40	BT-50
Spindle diameter		Φ150	Φ150	Φ150	Φ150	Φ150	Φ150	Φ150
Spindle bearing grade		P4	P4	P4	P4	P4	P4	P4
X axis travel		1500 (59.1)	1600 (63.0)	1600 (63.0)	1800 (70.9)	1800 (70.9)	2000 (78.8)	2000 (78.8)
Y axis travel		720 (28.3)	850 (33.46)	850 (33.5)	850 (33.5)	850 (33.5)	850 (33.5)	850 (33.5)
Z axis travel		680 (26.8)	750 (29.53)	750 (29.5)	750 (29.5)	750 (29.5)	750 (29.5)	750 (29.5)
Spindle nose to table		150-830 (5.9132.7)	150-900 (5.9-35.4)	150-900 (5.9-35.4)	150-900 (5.9-35.4)	150-900 (5.9-35.4)	150-900 (5.9-35.4)	150-900 (5.9-35.4)
Spindle center to z-rail		745	870	870	870	870	870	870
Ballscrew grade		C3	C3	C3	C3	C3	C3	C3
X/Y/Z ballscrew		ΦΦ50xΦ50xΦ50 (P10)	ΦΦ50xΦ50xΦ50 (P10)	ΦΦ50xΦ50xΦ50 (P10)	ΦΦ50xΦ50xΦ50 (P10)	ΦΦ50xΦ50xΦ50 (P10)	ΦΦ50xΦ50xΦ50 (P10)	ΦΦ50xΦ50xΦ50 (P10)
X/Y/Z linear guideway		120/100/120	120/150/125	120/150/125	120/150/125	120/150/125	120/150/125	120/150/125
X/Y/Z cutting feed rate		10	10	10	10	10	10	10
X/Y/Z rapid feed rate		15x15x12	12x12x10	12x12x10	12x12x10	12x12x10	12x12x10	12x12x10
Table size		1550x700 (61.0x27.6)	1700x700 (66.9x27.6)	1700x700 (66.9x27.6)	1900x800 (74.8x31.5)	1900x800 (74.8x31.5)	2100x800 (82.7x31.5)	2100x800 (82.7x31.5)
T-slot (numberxwidthxpitch)		5x18x130 (5x0.7x5.1)	6x18x125 (6x0.7x4.9)	6x18x125 (6x0.7x4.9)	6x18x125 (6x0.7x4.9)	6x18x125 (6x0.7x4.9)	6x18x125 (6x0.7x4.9)	6x18x125 (6x0.7x4.9)
Maximum table load		1500	1800	1800	2200	2200	2400	2400
Magazine type		Arm	Arm	Arm	Arm	Arm	Arm	Arm
Tool capacity		24T	24T	24T	24T	24T	24T	24T
Tool selection		Two-way selection	Two-way selection	Two-way selection	Two-way selection	Two-way selection	Two-way selection	Two-way selection
Maximum tool length		400 (15.7)	300 (11.8)	400 (15.7)	300 (11.8)	400 (15.7)	300 (11.8)	400 (15.7)
Tool diameter		Φ127 (Φ200 heavy tool)	Φ80 (Φ160 heavy tool)	Φ127 (Φ200 heavy tool)	Φ127 (Φ200 heavy tool)	Φ127 (Φ200 heavy tool)	Φ127 (Φ200 heavy tool)	Φ127 (Φ200 heavy tool)
Maximum tool weight		15	8	15	8	15	15	15
Tool shank		45	45	45	45	45	45	45
Chip conveyor		Scew	Belt + Screw	Belt + Screw	Belt + Screw	Belt + Screw	Belt + Screw	Belt + Screw
Air pressure		7~8	7~8	7~8	7~8	7~8	7~8	7~8
Power voltage		220V/380V	220V/380V	220V/380V	220V/380V	220V/380V	220V/380V	220V/380V
Power capacity		30	35	40	35	40	35	40
Floor space (LxWxH)		3800x3030x2685	4450x3030x3200	4450x3030x3200	4550x3030x3200	4550x3030x3200	4550x3030x3200	4550x3030x3200
Machine weight		10600	13500	13700	14050	14250	14300	14500

Standard Accessories

	TM-1500G	TM-1600	TM-1600G	TM-1800	TM-1800G	TM-2000	TM-2000G
Water gun	v	v	v	v	v	v	v
Air gun	v	v	v	v	v	v	v
Tool kit	v	v	v	v	v	v	v
Leveling pads	v	v	v	v	v	v	v
Operation manual	v	v	v	v	v	v	v
Controller warranty	v	v	v	v	v	v	v
Machine parts warranty	v	v	v	v	v	v	v