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TE — SERIES

High Accuracy.
High Performance.

Introducing the most powerful
TE-Series we ever design.

It's all about quality



XIAMEN TAKAM MACHINERY CO., LTD.

260 North Tongji Road,
Tong'an district,
Ximen city ,China.

Tel: +0086-592-7362548 Fax: +0086-592-7362540

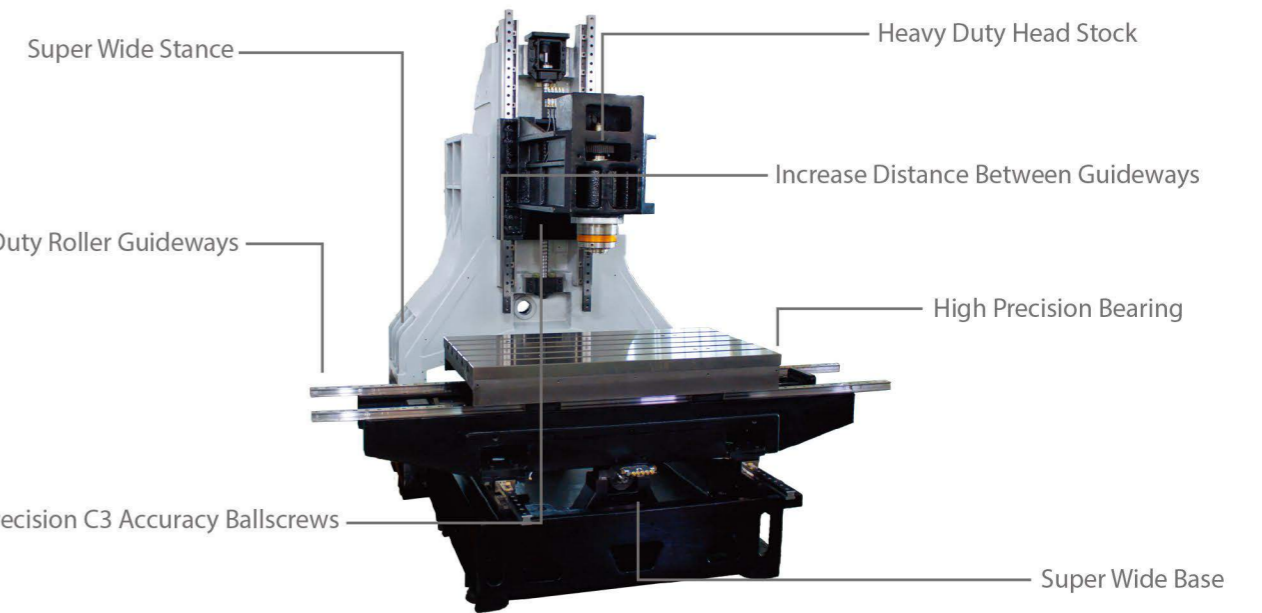
Website: www.takam.com.cn

TE-Series 2018-3-V.5

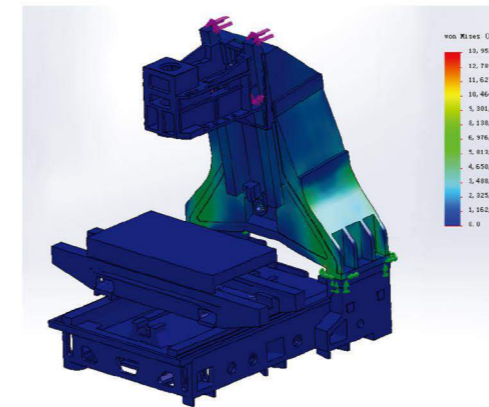
THE ULTIMATE ALL-ROUNDER.

Every day presents different challenges. Luckily, the Takam TE-Series has what it takes to tackle just about anything: versatility. Its super wide base design provides great balance of the machine and opens up to create a platform capable of supporting up to 800 to 1400 kg. With high-end servomotors that are directly connected to the ball screw not one single ounce of power is during transmission.

Just as impressive as the TE-Series performs in mold production with innovative design and cutting-edge technologies make it also very suitable for parts production. In short: the Takam TE-Series has a clever solution for whatever challenge comes it ways.

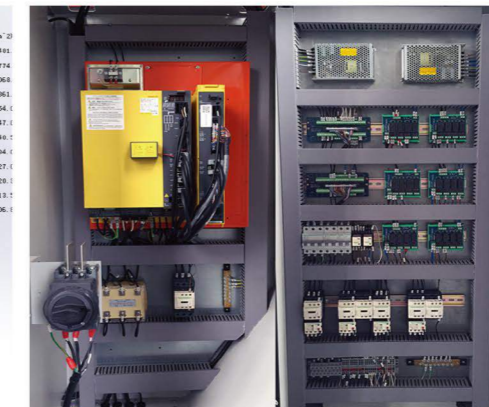


Display 1060/1260 machine body.



■ Designed with technology

TE-Series was designed with the most advance FEM analysis software on the market. We are able to test our design under many different stressed conditions. This gives us the ability to design the TE-Series machine to not only meet our customers requirements, but to surpass our customers needs. This gives the customer more value because of our design.



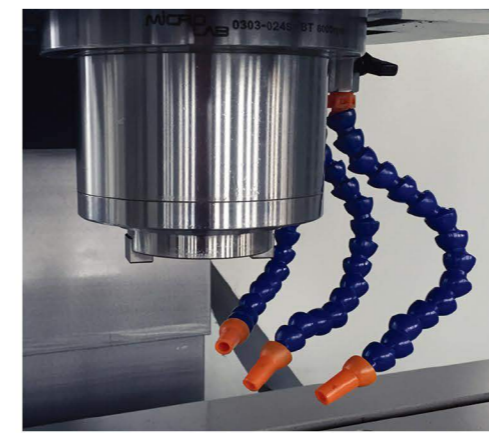
■ Separate is better

Many machines face overheating and noise from high voltage amps that are installed in the electronic cabinets. The TE-Series machine was designed to avoid all these problems. By separating all the high voltage from the low voltage parts the machine is able to reduce heat and noise from high voltage units affecting the low voltage units.



■ Swivel-type operation panel

The operation panel which can swivel from 0 degree to 90 degrees improves operability and visibility.



■ High-Capacity Cartridge Spindle

The advanced design of our spindles provides high axial- thrust capability, yet generates minimal heat. The spindle uses front and rear pre-load angular bearing with large spacer to enhance radial stability - enabling heavy cuts on steel. To ensure pro-long life of the spindle, high temperature grease is used to guarantee smooth operation of the spindle regardless of operation temperature.



■ High Speed Tool Changer

Without a tool changer the machine cannot operate at its fully automatic potential. That is why the TE-Series uses nothing but the most high quality tool changer on the market. With a 1.8 second tool change time it is one of the fastest performing tool change on the market.



■ A direct connect servo motor with a brake has been added

The Z-axis motor is equipped with internal brakes. This means the headstock will not lower by itself. Direct connect motor helps reduce back lash and helps create a better responding machine.



Using the expertise honed over 30+ years, the TE-Series is designed to carve through curves and cleaves of any material it meets-without cutting corners along the way.



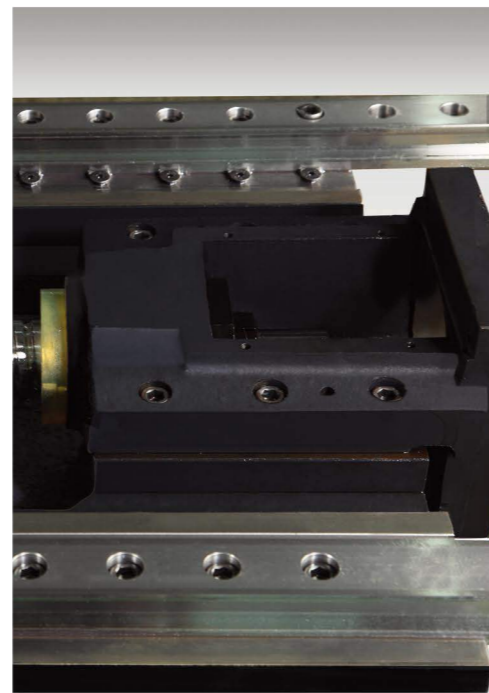
Always in control

We equipped our machine with the most powerful controller on the market. This gives the machine more flexibility to handle any task it needs to handle.



Strength in the right places

The TE-Series is designed with larger guideways and more slide blocks compare to other machines in the market. We believe by designing the machine with more than what is needed the machine will have the ability to cut faster, harder, and have more durability then other machines.



The little things that matter

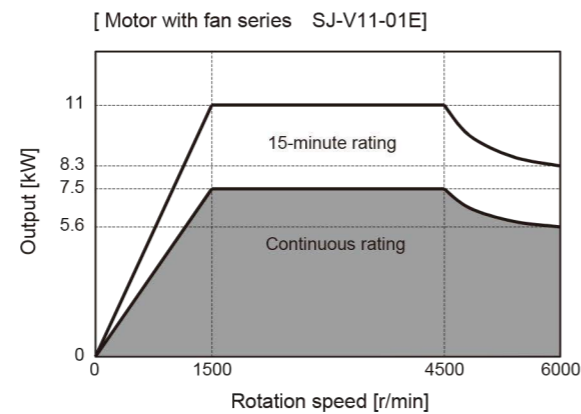
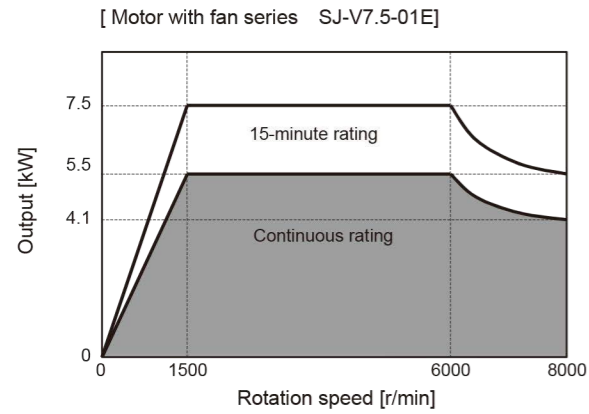
The most important part of the machine are the little things that no one ever ask about. With the TE-Series we looked at the little things and made sure it is up to the task. With larger and more bearings per-axis, we were able to give the machine more axis force for those heavy cutting jobs. With more bearings, we were able to put more force on each axis. This gives the machine more drilling ability, heavy cutting ability, and smoothness corning rigidity.



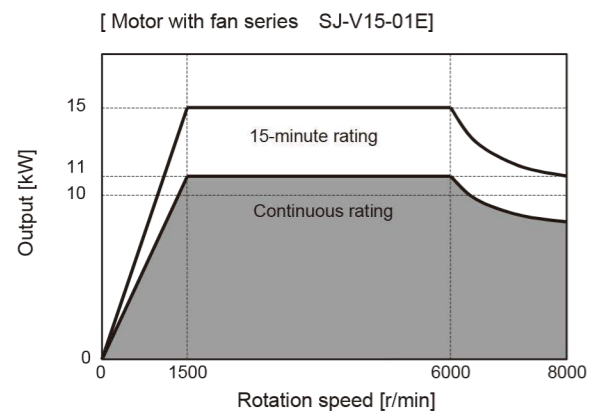
Performance Diagrams-Mitsubishi

TE-655/855/1055 Mitsubishi-Driver

TE-1060/1260/1270/1370/1470 Mitsubishi-Driver



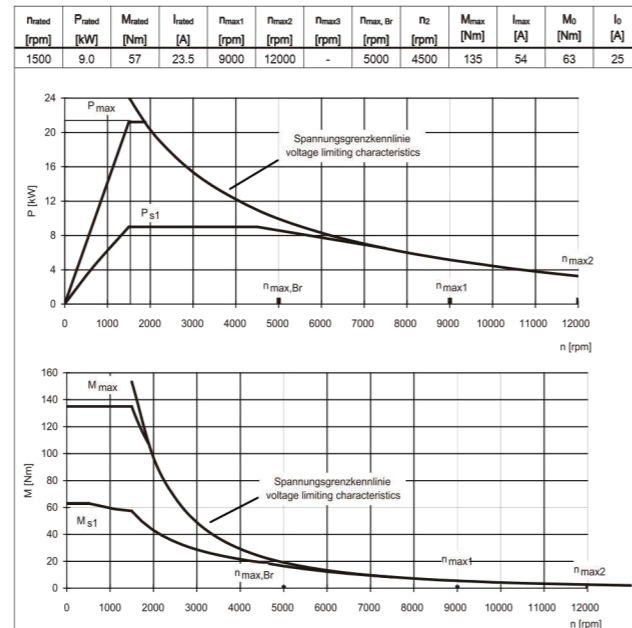
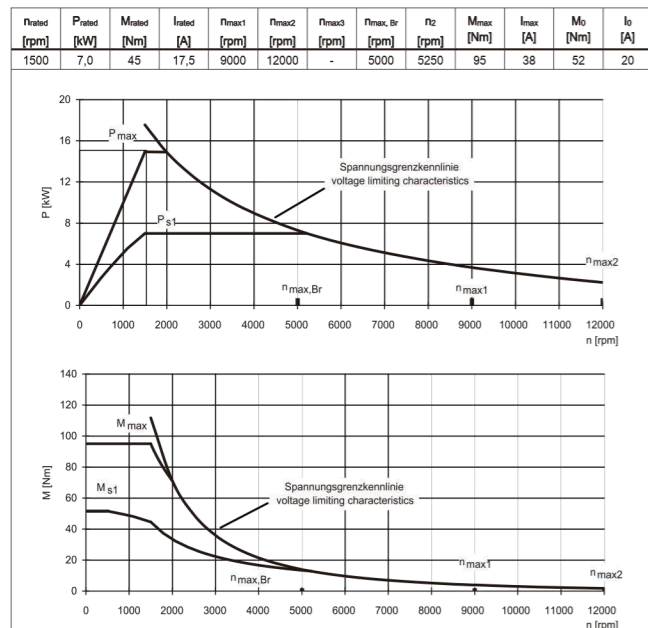
TE-1270/1370/1470 Mitsubishi-Driver Optional



Performance Diagrams-Siemens

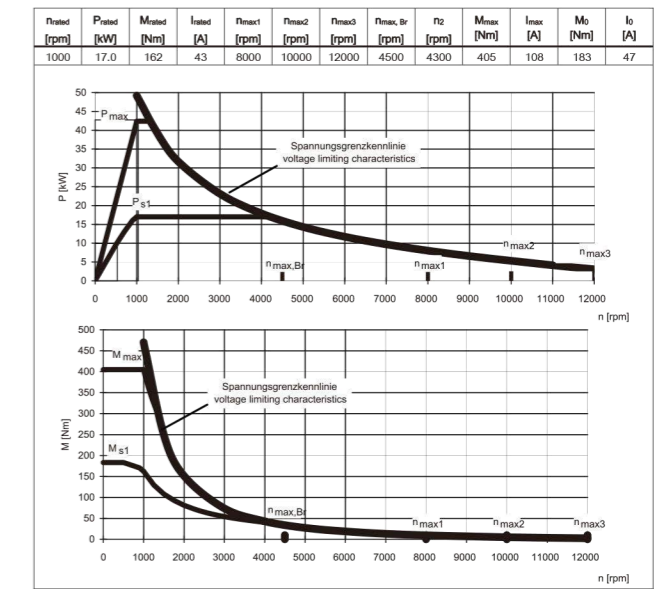
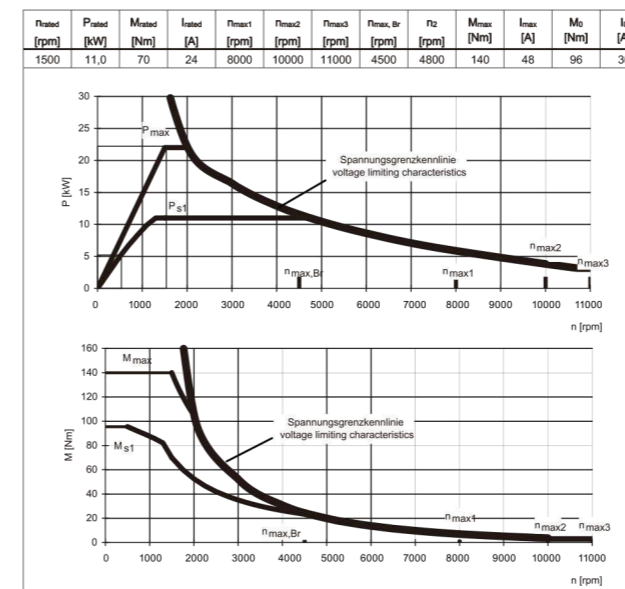
TE-655/855/1055 Siemens-Driver

TE-655/855/1055 Siemens-Driver Optional



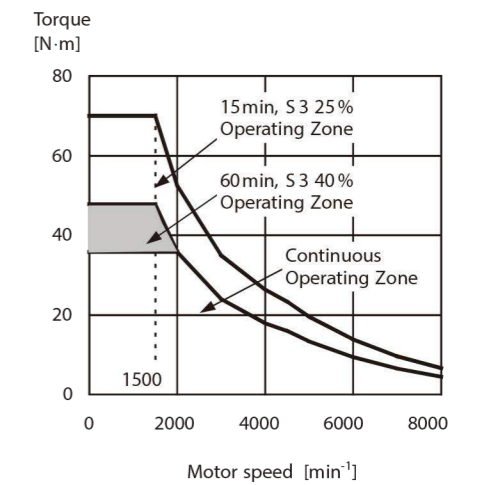
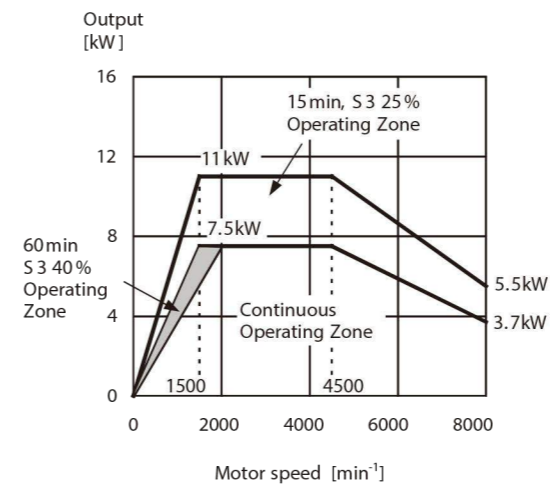
TE-1060/1260/1270/1370/1470 Siemens

TE-1060/1260/1270/1370/1470 Siemens-Driver Optional

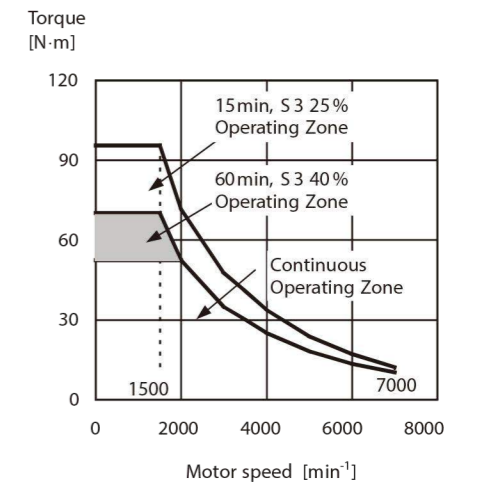
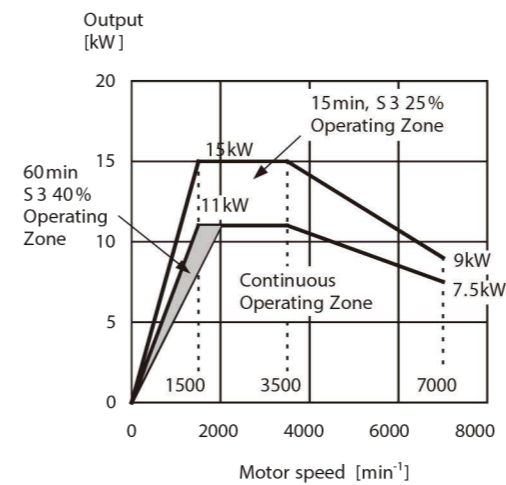


Performance Diagrams-Fanuc

TE-655/855/1055 Fanuc-Driver



TE-1060/1260/1270/1370/1470 Fanuc-Driver

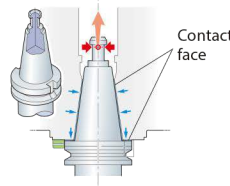


Options

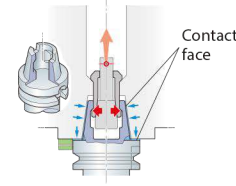
Two-face contact specifications OPTION

Tool rigidity has been improved by contact of both the spindle taper and the tool flange. This extends the useful life of a tool, raises cutting power and improves the machining precision.

BT40*, BT50*

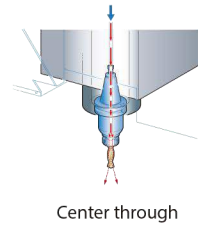


HSK-A63, HSK-A100



Through-spindle coolant system OPTION

The through-spindle coolant system effectively eliminates chips, cooling the machine point, and lengthening the lives of your tools.



Coolant Pressure:
 - 2 mpa
 - 3 mpa
 - 5 mpa
 - 7 mpa

* When the two-face contact specification is selected, a two-face contact tool and other tools cannot be used together.

* The colors and configurations shown in the photographs or illustrations may differ from those of the actual product.

Linear Scale OPTION

The absolute glass linear scale (full closed-loop control) made by HEIDENHAIN is effective for high-precision positioning, and is available as an option.



- High accuracy, high resolution
- Greater accuracy than standard machines
- Highly resistant to condensation and oil
- Vibration and impact resistant characteristics

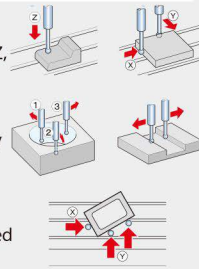
Workpiece measurement function OPTION

In-machine measuring system (spindle)
 Optical type touch sensor

In-machine measuring system (spindle)
 Inductive type touch sensor

Work setter function (manual measurement application)

- Reference plane measurement
 The machining reference point can be calculated simply by applying the sensor from the Z, X and Y-axis directions.
- Reference hole measurement
 Centering a boss, hole, groove or width can be done at any two or three points, simply by applying the sensor.
- Coordinate rotation measurement
 Machining can be done without changing the program even if the workpiece is attached crookedly, simply by performing this operation within the X-axis and Y-axis plane.



Tool measurement function OPTION

In-machine measuring system (table)
 Touch sensor (tool length)



Tool setter function (manual measurement application)

- Tool length measurement
 The tool length value can be registered automatically to the designated tool offset number.

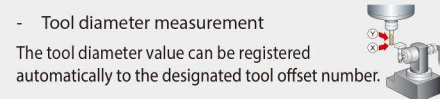


In-machine measuring system (table)
 Touch sensor (tool length / tool diameter)



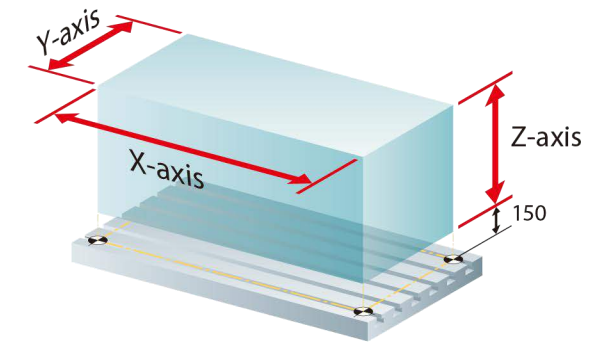
Tool setter function (manual measurement application)

- Tool length measurement
 The tool length value can be registered automatically to the designated tool offset number.
- Tool diameter measurement
 The tool diameter value can be registered automatically to the designated tool offset number.



Work Piece Size

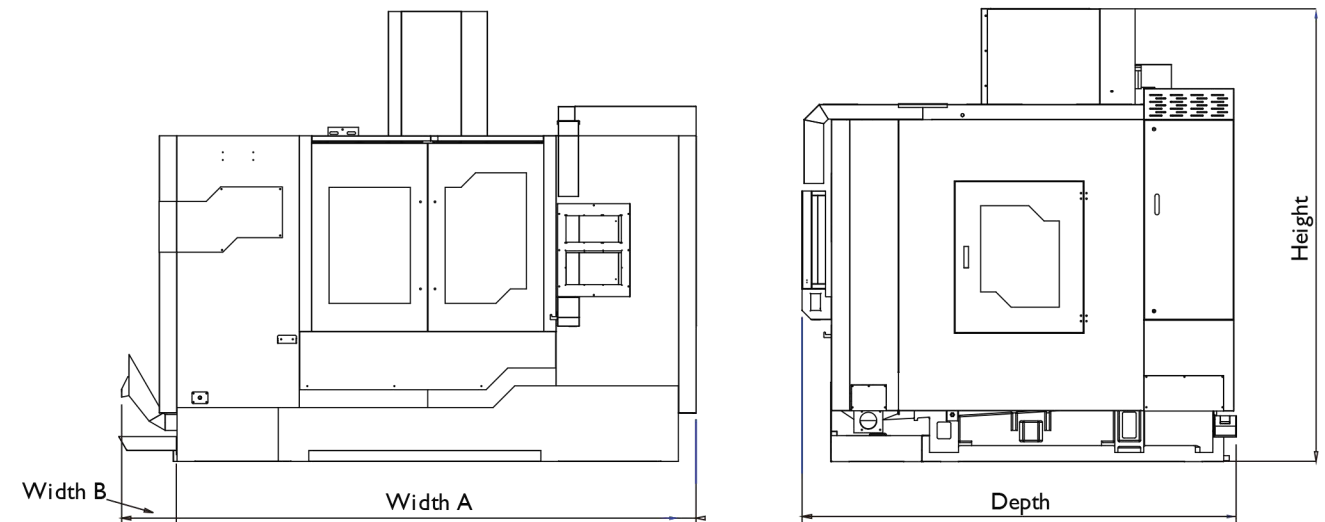
TE-Series



	Units	TE-655	TE-855	TE-1055	TE-1060	TE-1260	TE-1270	TE-1370	TE-1470
X-Axis	mm	650	850	1000	1020	1200	1200	1300	1400
Y-Axis	mm	550	550	550	600	620	720	720	720
Z-Axis	mm	550	550	550	600	600	700	700	700

Floor Plans

TE-Series



	Units	TE-655	TE-855	TE-1055	TE-1060	TE-1260	TE-1270	TE-1370	TE-1470
Depth	mm	2346	2346	2400	2471	2450	2849	2849	2849
Width A	mm	2350	2350	2600	2850	2900	3819	3819	3819
Width B	mm	344	344	368	346	308	139	139	139
Height Min	mm	2380	2380	2380	2460	2450	2960	2960	2960
Height Max	mm	2780	2780	2780	2910	2850	3050	3050	3050

Technical Data

	TE-655	TE-855	TE-855D	TE-1055	TE-1060
Table					
Area of Table (mm)	800 x 550	1000 x 550	1000 x 550	1100 x 550	1100 x 600
Working Area (mm)	650 x 550	850 x 550	850 x 550	1000 x 550	1020 x 600
T-Slot (mm)	100 x 18 x 5	100 x 18 x 5	100 x 18 x 5	100 x 18 x 5	100 x 18 x 5
Work Table Max Weight (kgs)	600	800	800	800	1000
Travel					
X/Y/Z - Axis Travel (mm)	650/550/550	850/550/550	850/550/550	1000/550/550	1020/600/600
Spindle Nose to Table surface (mm)	150-700	150-700	150-700	150-700	150-750
X/Y/Z-Guideway Type	Linear Guideway	Linear Guideway	Linear Guideway	Linear Guideway	Linear Guideway
Spindle					
Spindle Taper	BT40	BT40	BT40	BT40	BT40
Spindle R.P.M.	10000	10000	10000	10000	10000
Transmission Method					
Spindle Motor (kw)-Fanuc	11.0	11.0	11.0	11.0	11.0/15.0
Spindle Motor (kw)-Mitsubishi	7.5	7.5	7.5	7.5	11.0
Spindle Motor (kw)-Siemens	7.0	7.0	7.0	7.0	9.0
Spindle Motor (kw)-Heidenhain	7.5	7.5	7.5	7.5	10.0
Three-Axis Motor					
X/Y/Z-Axis Servo Motor (kw)-Fanuc	1.8/1.8/3.0BS	1.8/1.8/3.0BS	1.8/1.8/3.0BS	1.8/1.8/3.0BS	3.0/3.0/3.0BS
X/Y/Z-Axis Servo Motor (kw)-Mitsubishi	1.5/1.5/3.0BS	1.5/1.5/3.0BS	1.5/1.5/3.0BS	1.5/1.5/3.0BS	3.0/3.0/3.0BS
X/Y/Z-Axis Servo Motor (kw)-Siemens	2.3/2.3/3.3BS	2.3/2.3/3.3BS	2.3/2.3/3.3BS	2.3/2.3/3.3BS	3.3/3.3/4.87BS
X/Y/Z-Axis Servo Motor (kw)-Heindanhain	2.9/2.9/3.9BS	2.9/2.9/3.9BS	2.9/2.9/3.9BS	2.9/2.9/3.9BS	3.9/3.9/4.6BS
3-Axis Cutting Feed Rate (mm/min)	10000	10000	10000	10000	10000
3-Axis Rapid Traverse (m/min)	48/48/48	48/48/48	48/48/24	48/48/48	48/48/48
Others					
Machine Weight / Gross Weight (kgs)	4000	5000	5500	5500	6000
Control					
TE-Series Control	Fanuc Oi-MF/31i, Mitsubishi M80A/M80B, Siemens 828D/840D, Heidenhain TNC620/TNC640				

Standard

- Enclosed Guard
- Swiveling Control Box
- Low Energy Work Light
- LED 3 Color Warning Light
- Volumetric Type Automatic Lubricator
- Auto Power Off
- Rigid Tapping
- Tool Box
- Leveling Screws & Blocks
- Operation Manual
- Air Gun
- Mechanical Oil Coolant Separator

Technical Data

	TE-1260	TE-1270	TE-1370	TE-1470
Table				
Area of Table (mm)	1300 x 600	1300 x 700	1400 x 700	1500 x 700
Working Area (mm)	1200 x 600	1200 x 700	1300 x 700	1400 x 700
T-Slot (mm)	100 x 18 x 5	100 x 18 x 5	100 x 18 x 5	100 x 18 x 5
Work Table Max Weight (kgs)	1200	1200	1300	1400
Travel				
X/Y/Z - Axis Travel (mm)	1200/600/600	1200/720/700	1300/720/700	1400/720/700
Spindle Nose to Table surface (mm)	150-750	150-750	150-750	150-750
X/Y/Z-Guideway Type	Linear Guideway	Linear Guideway	Linear Guideway	Linear Guideway
Spindle				
Spindle Taper	BT40	BT50	BT50	BT50
Spindle R.P.M.	10000	6000	6000	6000
Transmission Method				
Spindle Motor (kw)-Fanuc	11.0/15.0	11.0/15.0	11.0/15.0	11.0/15.0
Spindle Motor (kw)-Mitsubishi	11.0	11.0/15.0	11.0/15.0	11.0/15.0
Spindle Motor (kw)-Siemens	9.0	11.0	11.0	11.0
Spindle Motor (kw)-Heidenhain	10.0	15.0	15.0	15.0
Three-Axis Motor				
X/Y/Z-Axis Servo Motor (kw)-Fanuc	3.0/3.0/3.0BS	3.0/3.0/3.0BS	3.0/3.0/3.0BS	3.0/3.0/3.0BS
X/Y/Z-Axis Servo Motor (kw)-Mitsubishi	3.0/3.0/3.0BS	3.0/3.0/4.5BS	3.0/3.0/4.5BS	3.0/3.0/4.5BS
X/Y/Z-Axis Servo Motor (kw)-Siemens	3.3/3.3/4.87BS	4.87/4.87/4.87BS	4.87/4.87/4.87BS	4.87/4.87/4.87BS
X/Y/Z-Axis Servo Motor (kw)-Heindanhain	3.9/3.9/4.6BS	4.6/4.6/4.6BS	4.6/4.6/4.6BS	4.6/4.6/4.6BS
3-Axis Cutting Feed Rate (mm/min)	10000	10000	10000	10000
3-Axis Rapid Traverse (m/min)	36/36/36	24/24/24	24/24/24	24/24/24
Others				
Machine Weight / Gross Weight (kgs)	6200	8000	8400	9000
Control				
TE-Series Control	Fanuc Oi-MF/31i, Mitsubishi M80A/M80B, Siemens 828D/840D, Heidenhain TNC620/TNC640			

Options

- Upgrade 40 Taper to 50 Taper (Only TE-1060/1260/1270/1370/1470)
- Tool Changer 16/20/24/30/32
- Spindle Upgrade to Direct Drive 10000/12000/15000 rpm
- Spindle Upgrade Belt Type 12000 rpm
- Spindle Upgrade Built-in 18000/24000 rpm
- Screw Type Chip Conveyor
- Chain Type Chip Conveyor
- Chip Wash System
- Tool measuring system
- Tool breakage system
- Linear Scale
- Spindle Oil Cooler
- Coolant Through Spindle
- Air Through Spindle
- Oil Mist Collector
- Fully Enclosed Casing