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Endless Innovation



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# ME-SERIES

High Accuracy.  
High Performance.

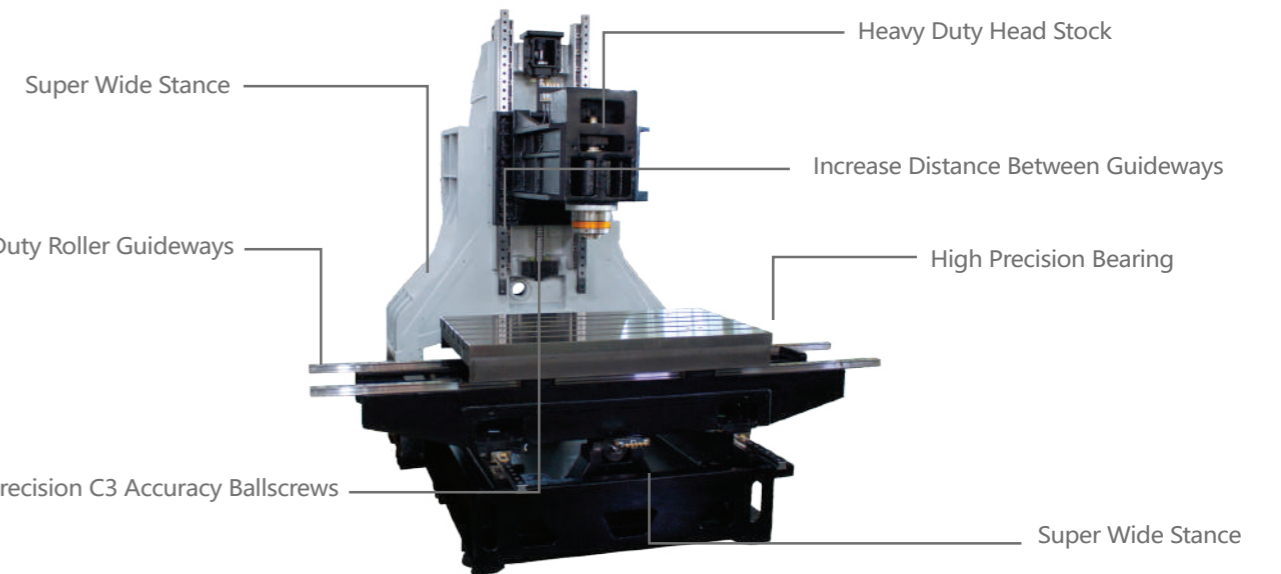
Introducing the most powerful  
ME-Series we ever design.



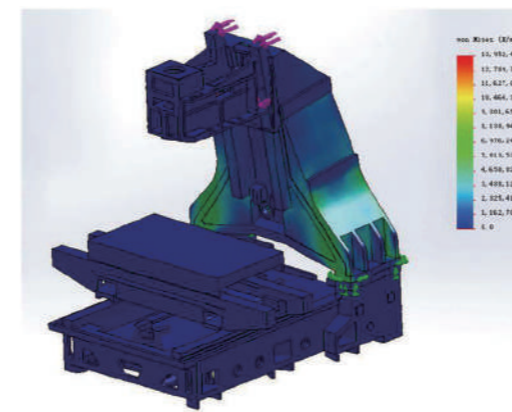
# THE ULTIMATE ALL-ROUNDER.

Every day presents different challenges. Luckily, the Maple ME-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 2000 kg. With high-end servo motors that are directly connected to the ball screw not one single ounce of power is lost during transmission.

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



Display 1060 machine body.



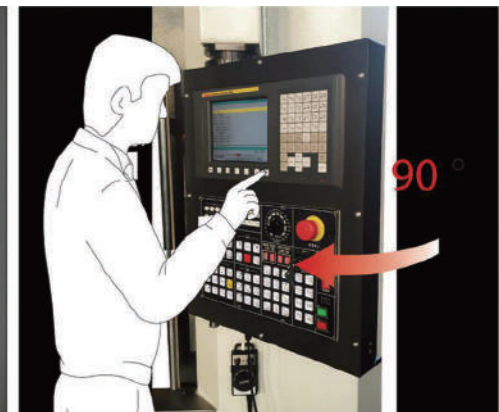
### ■ Designed with technology

ME-Series was designed with the most advanced 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 ME-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.



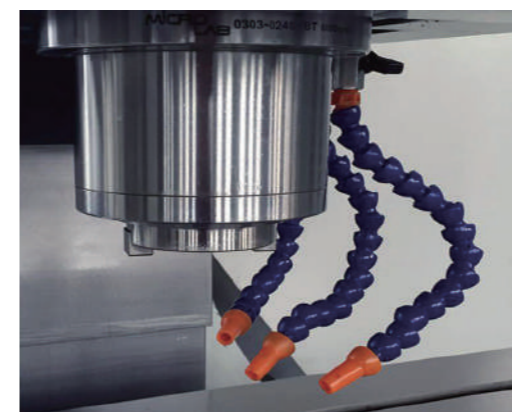
### ■ Separate is better

Many machines face overheating and noise from high voltage amps that are installed in the electronic cabinets. The ME-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.



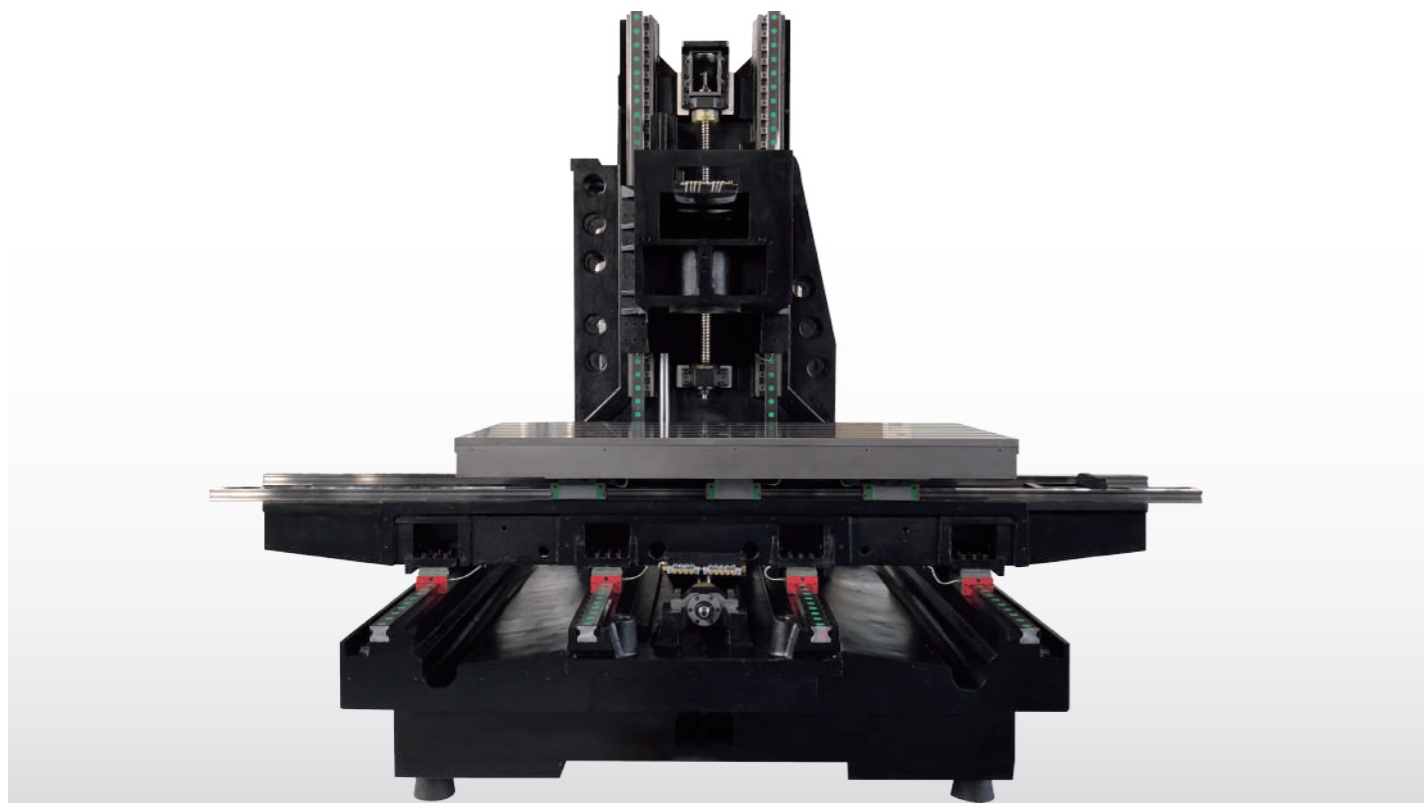
### ■ High Speed Tool Changer

Without a tool changer the machine cannot operate at its fully automatic potential. That is why the ME-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 ME-Series is designed to carve through any material it meets-without sacrificing accuracy or finish along the way.



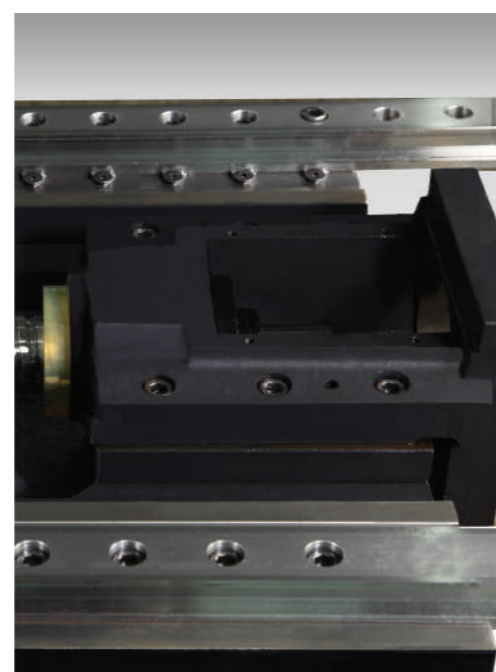
#### Always in control

We equipped our machine with the most powerful controller on the market. This gives the machine more high speed capability and increase productivity.



#### Strength in the right places

The ME-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 is able to cut faster, harder, and have more durability then other machines.



#### The little things that matter

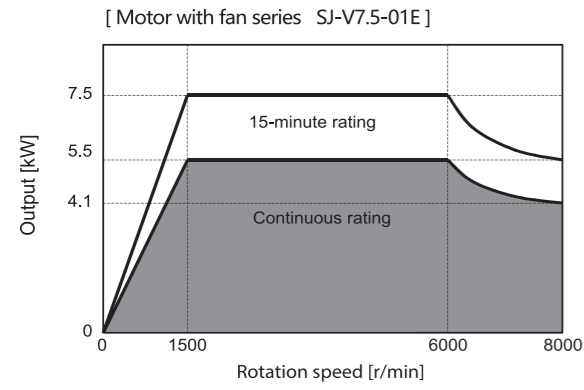
The most important parts of the machine are the little things that no one ever ask about. With the ME-Series we looked at the little things and made sure it was up to the task. With larger and more bearings per-axis, we were able to give the machine more axis force which enables the machine to have more drilling ability, heavier cutting ability and more smoothness during corning.



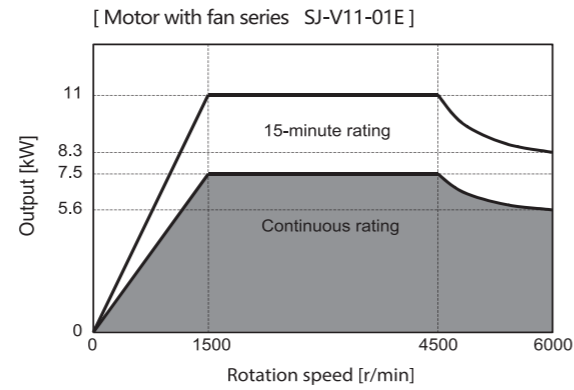
ME-1270/1370/1470/1670/1690/1890

## Performance Diagrams -Mitsubishi

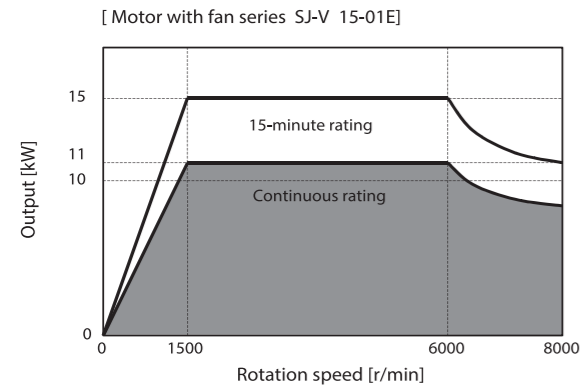
ME-655/855/1055 Mitsubishi-Drive



ME-1060/1160/1260/1270 Mitsubishi-Drive

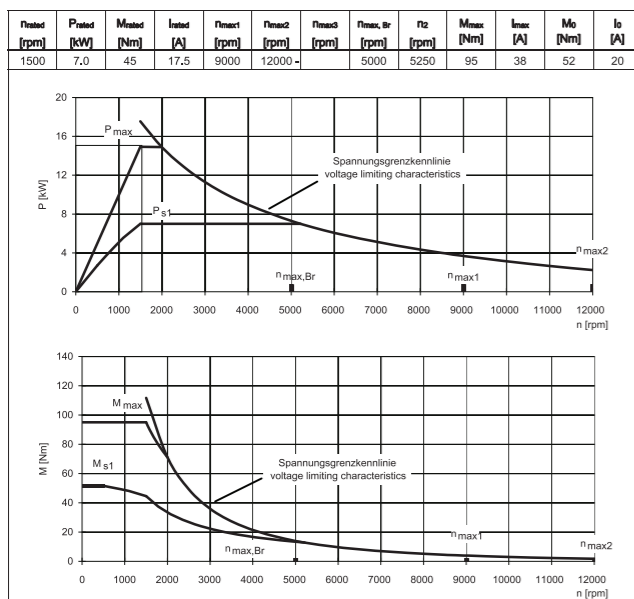


ME-1370/1470/1670/1690/1890/1611/1811/2012 Mitsubishi-Drive

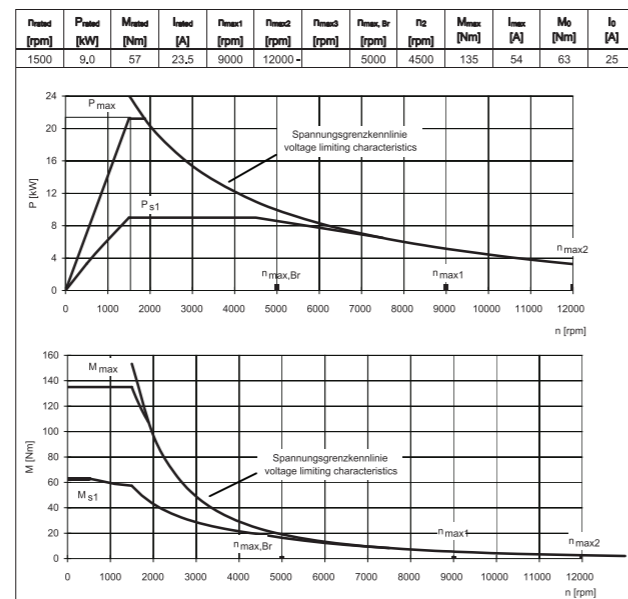


## Performance Diagrams -Siemens

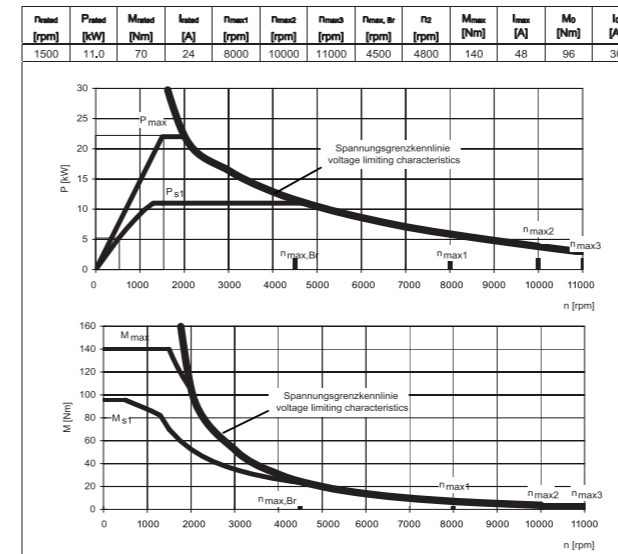
ME-655/855/1055 Siemens-Drive



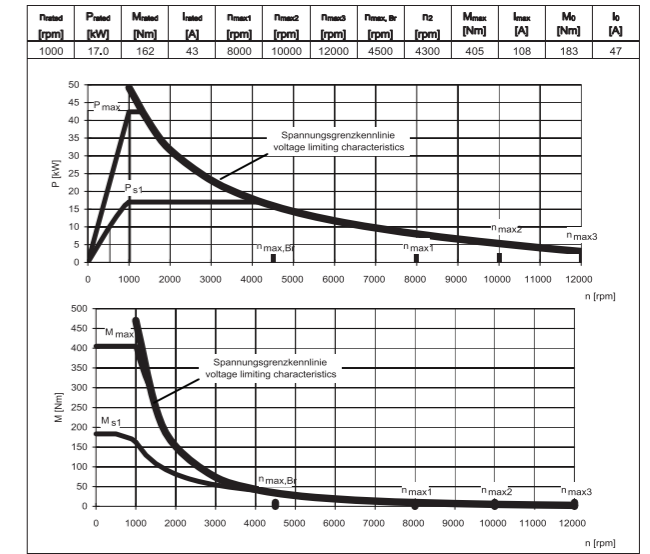
ME-1060/1160/1260/1270 Siemens-Drive



ME-1060/1160/1260/1270 Siemens-Drive Optional

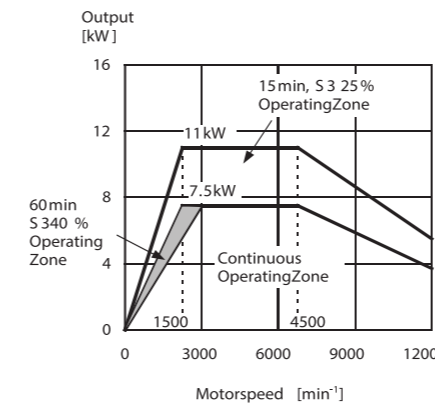


ME-1370/1470/1670/1690/1890/1611/1811/2012 Siemens-Drive Optional

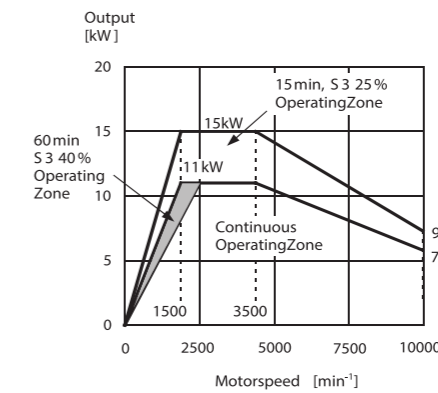


## Performance Diagrams -Fanuc

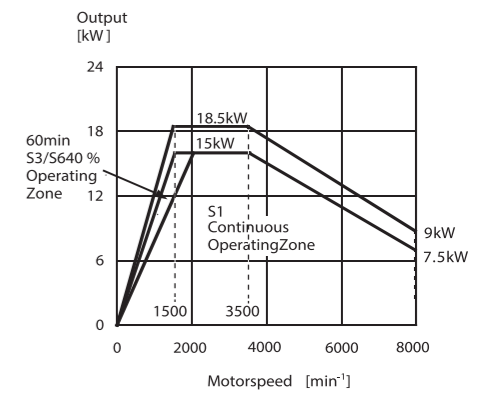
ME-655/855/1055 Fanuc-Drive



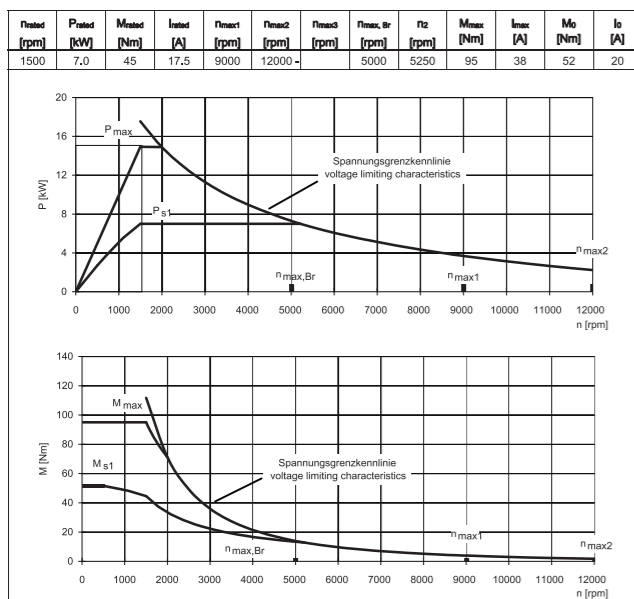
ME-1060/1160/1260/1270/1370/1470/1670 Fanuc-Drive



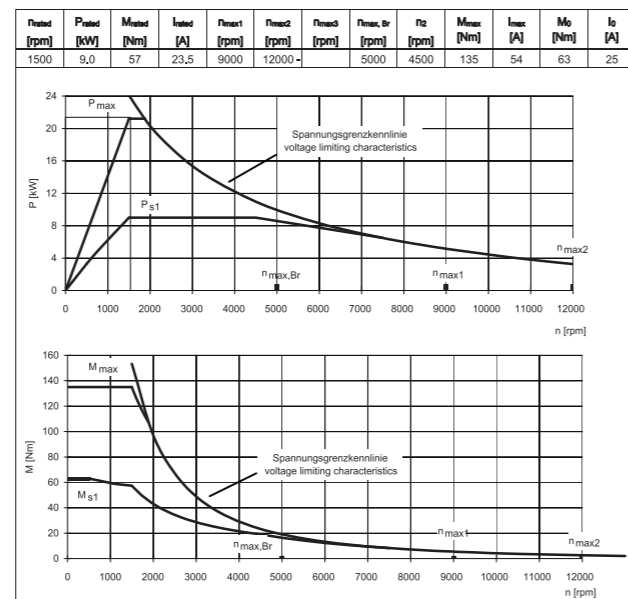
ME-1690/1890/1611/1811/2012 Fanuc-Drive



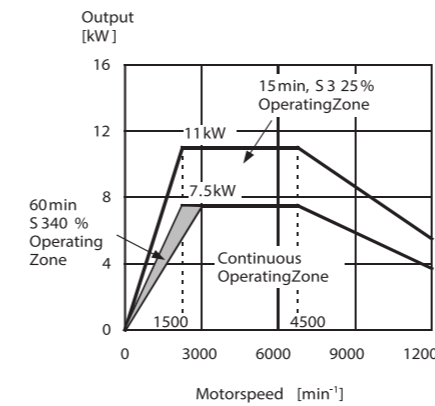
ME-655/855/1055 Siemens-Drive



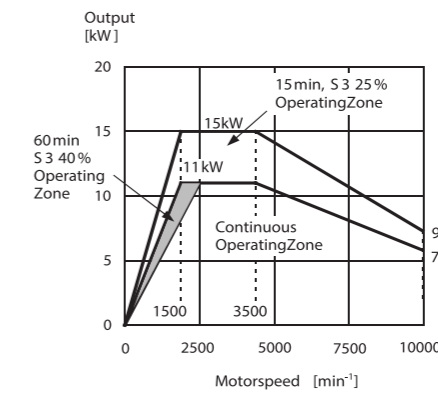
ME-1060/1160/1260/1270 Siemens-Drive



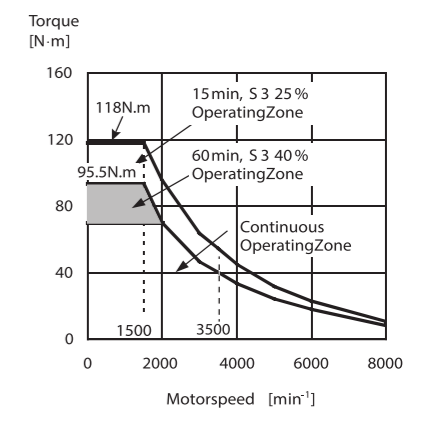
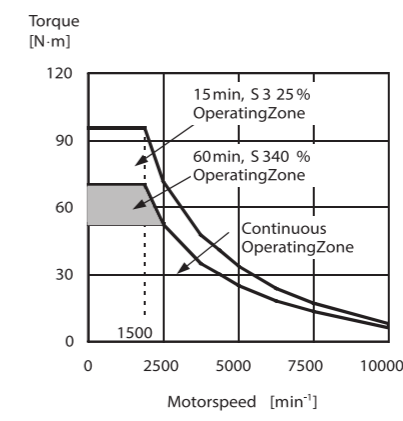
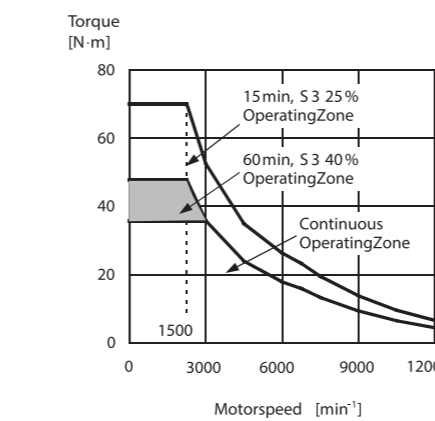
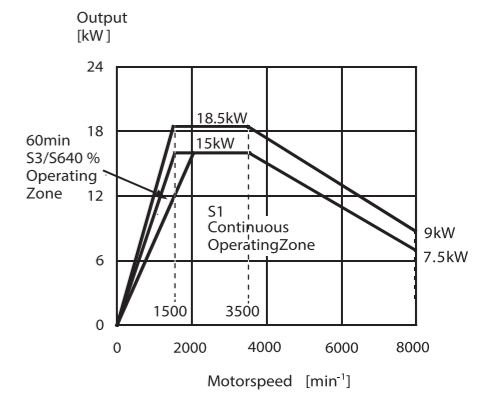
ME-655/855/1055 Fanuc-Drive



ME-1060/1160/1260/1270/1370/1470/1670 Fanuc-Drive



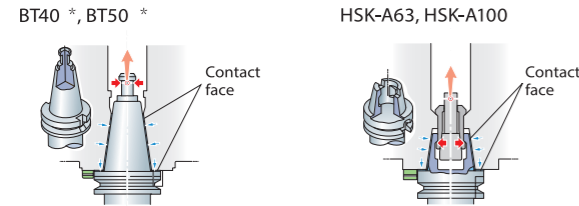
ME-1690/1890/1611/1811/2012 Fanuc-Drive



## Options

### Two-face contact specifications OPTION

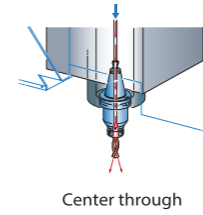
Tool rigidity has been improved by contact of both the spindle taper and the tool flange. This extends the useful life of a tool, raises cutting power and improves the machining precision.



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

### 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

\* 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

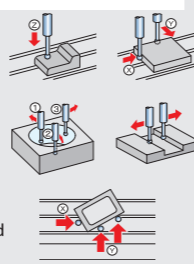
In-machine measuring system (spindle)  
 Optical type touch sensor

#### 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.



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

### 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.

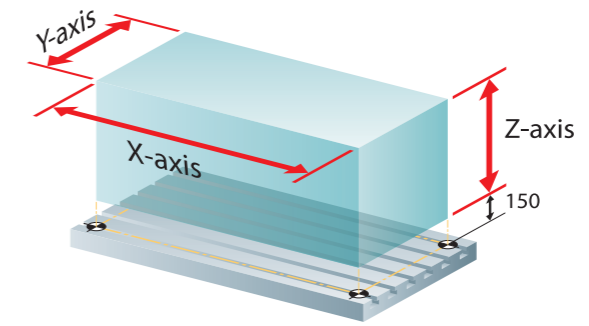


- Tool diameter measurement  
 The tool diameter value can be registered automatically to the designated tool offset number.



## Work Piece Size

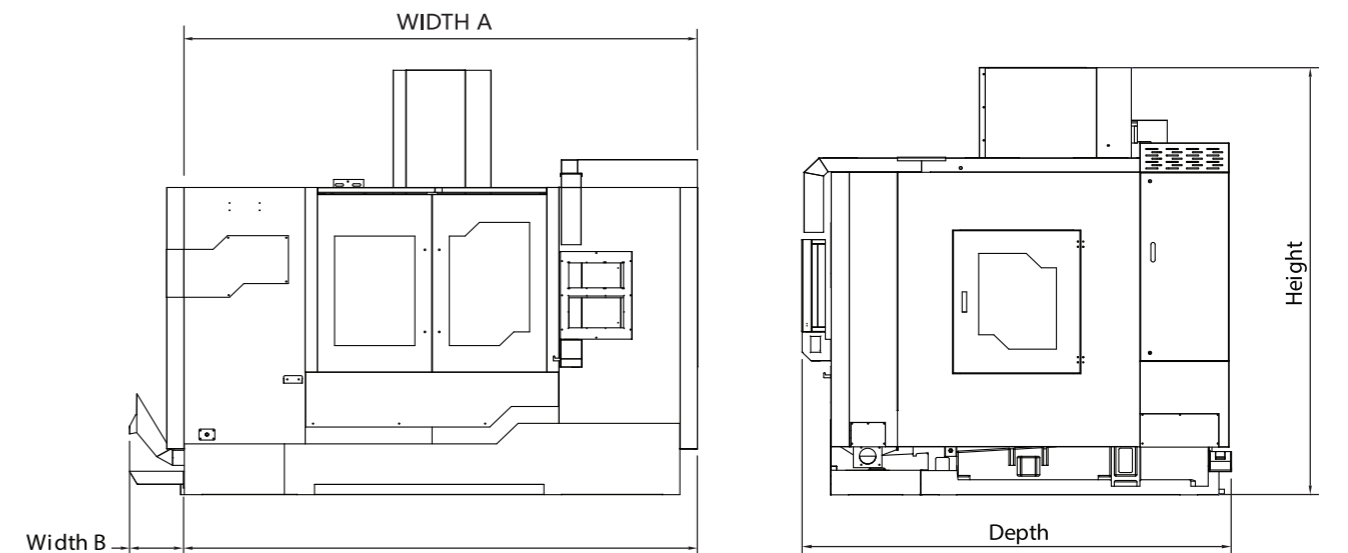
ME-Series



| Units     | ME-655 | ME-855 | ME-1055 | ME-1060 | ME-1160 | ME-1260 | ME-1270 | ME-1370 | ME-1470 | ME-1670 | ME-1690 | ME-1890 | ME-1611 | ME-1811 | ME-2012 |
|-----------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| X-Axis mm | 650    | 850    | 1000    | 1000    | 1100    | 1200    | 1200    | 1300    | 1400    | 1600    | 1600    | 1800    | 1600    | 1800    | 2000    |
| Y-Axis mm | 550    | 550    | 550     | 620     | 600     | 600     | 720     | 720     | 720     | 720     | 900     | 900     | 1100    | 1100    | 1200    |
| Z-Axis mm | 550    | 550    | 550     | 600     | 600     | 600     | 700     | 700     | 700     | 700     | 800     | 800     | 900     | 900     | 860     |

## Floor Plans

ME-Series



|            | Units | ME-655 | ME-855 | ME-1055 | ME-1060 | ME-1160 | ME-1260 | ME-1270 | ME-1370 | ME-1470 | ME-1670 | ME-1690 | ME-1890 | ME-1611 | ME-1811 | ME-2012 |
|------------|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Width A    | mm    | 2420   | 2420   | 2420    | 3000    | 3000    | 2900    | 3000    | 3700    | 3700    | 3700    | 4480    | 4200    | 4100    | 4200    | 5700    |
| Width B    | mm    | 300    | 300    | 330     | 300     | 300     | 300     | 300     | 300     | 300     | 300     | 300     | 300     | 300     | 300     | 300     |
| Depth      | mm    | 2416   | 2416   | 2416    | 2482    | 2482    | 2420    | 2482    | 2462    | 2462    | 2462    | 4010    | 2850    | 3500    | 3500    | 3900    |
| Height Min | mm    | 2350   | 2350   | 2350    | 2450    | 2450    | 2450    | 2550    | 2850    | 2850    | 2850    | 2850    | 2900    | 2850    | 2900    | 4200    |
| Height Max | mm    | 2750   | 2750   | 2750    | 2900    | 2900    | 2850    | 3000    | 3170    | 3170    | 3200    | 3200    | 3250    | 3250    | 3250    | 4600    |

## Technical Data

|  | ME-655  | ME-855           | ME-1055          | ME-1060          | ME-1160          | ME-1260         | ME-1270         |
|--|---|------------------|------------------|------------------|------------------|-----------------|-----------------|
| <b>Table</b>   |   |                  |                  |                  |                  |                 |                 |
| Area of Table (mm)   | 800 x 550   | 1000 x 550       | 1100 x 550       | 1100 x 600       | 1200 x 600       | 1300 x 600      | 1300 x 700      |
| Working Area (mm)  | 650 x 550   | 850 x 550        | 1000 x 550       | 1000 x 600       | 1100 x 600       | 1200 x 600      | 1200 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     | 100 x 18 x 5     | 100 x 18 x 5    | 100 x 18 x 6    |
| Work Table Max Weight (kgs)  | 600   | 800              | 800              | 1000             | 1000             | 1200            | 1200            |
| <b>Travel</b>  |   |                  |                  |                  |                  |                 |                 |
| X/Y/Z - Axis Travel (mm)   | 650/550/550   | 850/550/550      | 1000/550/550     | 1000/620/600     | 1100/600/600     | 1200/600/600    | 1200/720/700    |
| Spindle Nose to Table surface (mm)   | 150-700   | 150-700          | 150-700          | 150-750          | 150-750          | 150-750         | 150-850         |
| X/Y/Z-Guideway Type  | Linear Guideway   | Linear Guideway  | Linear Guideway  | Linear Guideway  | Linear Guideway  | Linear Guideway | Linear Guideway |
| <b>Spindle</b>   |   |                  |                  |                  |                  |                 |                 |
| Spindle Taper  | BT40  | BT40             | BT40             | BT40/BT50        | BT40/BT50        | BT40/BT50       | BT40/BT50       |
| Spindle rpm  | 10000   | 10000            | 10000            | 10000/6000       | 10000/6000       | 10000/6000      | 10000/6000      |
| <b>Transmission Method</b>   |   |                  |                  |                  |                  |                 |                 |
| Spindle Motor (kw)-Fanuc   | 7.5/11  | 7.5/11           | 7.5/11           | 11/15            | 11/15            | 11/15           | 11/15           |
| Spindle Motor (kw)-Mitsubishi  | 5.5/7.5   | 5.5/7.5          | 5.5/7.5          | 7.5/11           | 7.5/11           | 7.5/11          | 7.5/11          |
| Spindle Motor (kw)-Siemens   | 7   | 7                | 7                | 9                | 9                | 9               | 9               |
| Spindle Motor (kw)-Heidenhain  | 7.5   | 7.5              | 7.5              | 10               | 10               | 10              | 10              |
| <b>Three-Axis Motor</b>  |   |                  |                  |                  |                  |                 |                 |
| 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    | 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  | 1.5/1.5/3.0BS   | 1.5/1.5/3.0BS    | 1.5/1.5/3.0BS    | 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)-Siemens  | 2.85/2.85/3.55BS  | 2.85/2.85/3.55BS | 2.85/2.85/3.55BS | 3.55/3.55/3.55BS | 3.55/3.55/3.55BS | 3.55/3.55/5.5BS | 3.55/3.55/5.5BS |
| X/Y/Z-Axis Servo Motor(kw)-Heidenhain  | 2.9/2.9/3.9BS   | 2.9/2.9/3.9BS    | 2.9/2.9/3.9BS    | 3.9/3.9/3.9BS    | 3.9/3.9/3.9BS    | 3.9/3.9/4.6BS   | 3.9/3.9/4.6BS   |
| 3-Axis Cutting Feed Rate (mm/min)  | 10000   | 10000            | 10000            | 10000            | 10000            | 10000           | 10000           |
| 3-Axis Rapid Traverse (m/min)  | 36/36/36  | 36/36/36         | 36/36/36         | 36/36/36         | 36/36/36         | 36/36/36        |                 |
| <b>Others</b>  |   |                  |                  |                  |                  |                 |                 |
| Machine Weight / Gross Weight (kgs)  | 4500  | 5200             | 5500             | 6200             | 6400             | 6500            | 7000            |
| <b>Control</b>   |   |                  |                  |                  |                  |                 |                 |
| ME-Series Control  | Fanuc OI-MF PLUS / 31i, Mitsubishi M80A/M80B, Siemens 828D/840D, Heidenhain TNC620/TNC640           |                  |                  |                  |                  |                 |                 |
| <b>Standard</b>  |   |                  |                  |                  |                  |                 |                 |
| <ul style="list-style-type: none"> <li>Enclosed Guard</li> <li>Swiveling Control Box</li> <li>Low Energy Work Light</li> <li>LED 3 Color Warning Light</li> <li>Volumetric Type Automatic Lubricator</li> <li>Auto Power Off</li> <li>Rigid Tapping</li> <li>Tool Box</li> <li>Leveling Screws &amp; Blocks</li> <li>Operation Manual</li> </ul> | <ul style="list-style-type: none"> <li>Air Gun</li> <li>Mechanical Oil Coolant Separator</li> </ul> |                  |                  |                  |                  |                 |                 |

## Technical Data

|   | ME-1370   | ME-1470         | ME-1670         | ME-1690         | ME-1890         | ME-1611         | ME-1811         | ME-2012          |
|---|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| <b>Table</b>  |   |                 |                 |                 |                 |                 |                 |                  |
| Area of Table (mm)  | 1400 x 700  | 1500 x 700      | 1700 x 700      | 1800 x 900      | 2000 x 900      | 1800 x 1100     | 2000 x 1100     | 2100 x 1200      |
| Working Area (mm)   | 1300 x 700  | 1400 x 700      | 1600 x 700      | 1600 x 900      | 1800 x 900      | 1600 x 1100     | 1800 x 1100     | 2000 x 1200      |
| T-Slot (mm)   | 100 x 18 x 6  | 100 x 18 x 6    | 100 x 18 x 6    | 150 x 22 x 5    | 150 x 22 x 5    | 155 x 22 x 7    | 155 x 22 x 7    | 150 x 22 x 7     |
| Work Table Max Weight (kgs)   | 1400  | 1500            | 1600            | 2000            | 2000            | 2000            | 2500            | 2000             |
| <b>Travel</b>   |   |                 |                 |                 |                 |                 |                 |                  |
| X/Y/Z - Axis Travel (mm)  | 1300/720/700  | 1400/720/700    | 1600/720/700    | 1600/900/800    | 1800/900/800    | 1600/1100/900   | 1800/1100/900   | 2000/1200/860    |
| Spindle Nose to Table surface (mm)  | 150-850   | 150-850         | 150-850         | 150-950         | 150-950         | 150-1050        | 150-1050        | 150-1010         |
| X/Y/Z-Guideway Type   | Linear Guideway   | Linear Guideway | Linear Guideway | Linear Guideway | Linear Guideway | Linear Guideway | Linear Guideway | Linear Guideway  |
| <b>Spindle</b>  |   |                 |                 |                 |                 |                 |                 |                  |
| Spindle Taper   | BT40/BT50   | BT40/BT50       | BT40/BT50       | BT50            | BT50            | BT50            | BT50            | BT50/HSK63       |
| Spindle rpm   | 10000/6000  | 10000/6000      | 10000/6000      | 6000            | 6000            | 6000            | 6000            | 6000/12000/18000 |
| <b>Transmission Method</b>  |   |                 |                 |                 |                 |                 |                 |                  |
| Spindle Motor (kw)-Fanuc  | 11/15   | 11/15           | 11/15           | 15/18.5         | 15/18.5         | 15/18.5         | 15/18.5         | 15/18.5          |
| Spindle Motor (kw)-Mitsubishi   | 11/15   | 11/15           | 11/15           | 11/15           | 11/15           | 11/15           | 11/15           | 11/15            |
| Spindle Motor (kw)-Siemens  | 15  | 15              | 15              | 15              | 15              | 15              | 15              | 15               |
| Spindle Motor (kw)-Heidenhain   | 15  | 15              | 15              | 15              | 15              | 15              | 15              | 15               |
| <b>Three-Axis Motor</b>   |   |                 |                 |                 |                 |                 |                 |                  |
| 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   | 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   | 4.5/4.5/4.5BS   | 4.5/4.5/4.5BS   | 4.5/4.5/4.5BS   | 4.5/4.5/4.5BS   | 4.5/4.5/4.5BS   | 7.0/7.5/4.5BS   | 7.0/7.0/3.0BS   | 4.5/4.5/4.5BS    |
| X/Y/Z-Axis Servo Motor (kw)-Siemens   | 5.5/5.5/5.5BS   | 5.5/5.5/5.5BS   | 5.5/5.5/5.5BS   | 5.5/5.5/5.5BS   | 5.5/5.5/5.5BS   | 6.4/6.4/5.5BS   | 6.4/6.4/5.5BS   | 5.5/5.5/5.5BS    |
| X/Y/Z-Axis Servo Motor(kw)-Heidenhain   | 4.6/4.6/4.6BS   | 4.6/4.6/4.6BS   | 4.6/4.6/4.6BS   | 4.6/4.6/4.6BS   | 4.6/4.6/4.6BS   | 9.6/9.6/5.2BS   | 9.6/9.6/5.2BS   | 4.6/4.6/4.6BS    |
| 3-Axis Cutting Feed Rate (mm/min)   | 10000   | 10000           | 10000           | 6000            | 6000            | 10000           | 10000           | 6000             |
| 3-Axis Rapid Traverse (m/min)   | 24/24/24 std. (36/36/24 opt.)   |                 |                 | 20/20/20        | 20/20/20        | 20/20/20        | 20/20/20        | 20/20/15         |
| <b>Others</b>   |   |                 |                 |                 |                 |                 |                 |                  |
| Machine Weight / Gross Weight (kgs)   | 9000  | 9500            | 10000           | 15000           | 16000           | 16000           | 17000           | 19000            |
| <b>Control</b>  |   |                 |                 |                 |                 |                 |                 |                  |
| ME-Series Control   | Fanuc OI-MF PLUS /31i, Mitsubishi M80A/M80B, Siemens 828D/840D, Heidenhain TNC620/TNC640  |                 |                 |                 |                 |                 |                 |                  |
| <b>Options</b>  |   |                 |                 |                 |                 |                 |                 |                  |
| <ul style="list-style-type: none"> <li>Tool Changer 16/20/24/30/32</li> <li>Spindle Upgrade to Direct Drive 10000/12000/15000rpm</li> <li>Spindle Upgrade Belt Type 12000 rpm</li> <li>Spindle Upgrade Built-in 18000/24000 rpm</li> <li>Screw Type Chip Conveyor</li> <li>Chain Type Chip Conveyor</li> <li>Chip Wash System</li> <li>Tool measuring system</li> <li>Tool breakage system</li> </ul> | <ul style="list-style-type: none"> <li>Linear Scale</li> <li>Spindle Oil Cooler</li> <li>Coolant Through Spindle</li> <li>Air Through Spindle</li> <li>Oil Mist Collector</li> <li>Fully Enclosed Casing</li> </ul> |                 |                 |                 |                 |                 |                 |                  |