EMAR
CNC MACHINES

# CNC Milling Machines

## Detail Makes Perfect



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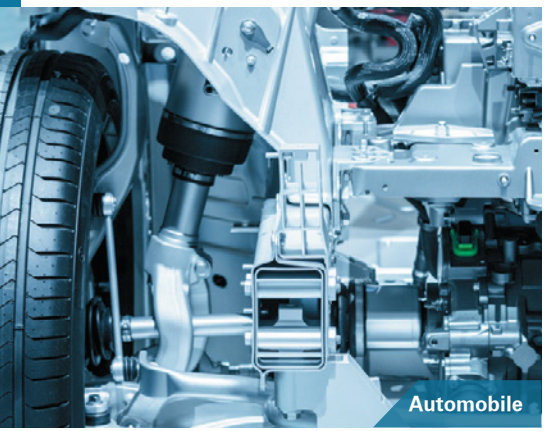
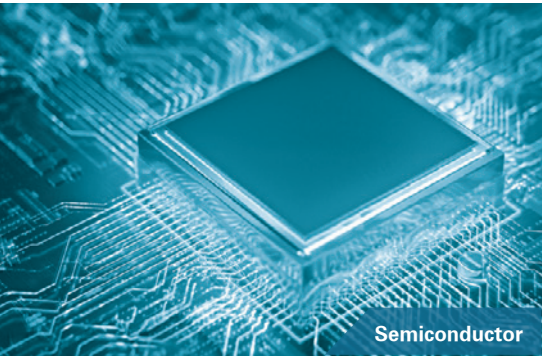
# VERTICAL MACHINING CENTER

## Best Machine Design Ensures Perfect Machining Efficiency


Automobile


Communication (5G)


Semiconductor


Medical Devices


Aerospace


Automation



## Elaboration Makes Perfection

Each vertical machining center is carefully crafted, focusing on the display of heavy-cutting capabilities.


## Elaboration Makes Perfection

Its unique rigid structure, superior processing capacities and precision are applied to complex work pieces and precision molds, and can completely meet your requirements! Machine specifications can be customized for special processing requirements.

## Features of the Machine

- The design of the machine has complied with the strictest safety standards; the whole machine is fully covered, with beautiful appearance and convenient for operation and maintenance.
- The chip removal of machine tool comes standard with the back row of slopes on both sides, and the rear design of water tank is humanized and efficient; double-layer water tank filtration system provides good cutting fluid for work piece processing.
- The spindle adopts high-speed spindle unit and BBT15000/12000-40 rpm direct drive spindle. The front end of spindle adopts labyrinth design, providing air curtain protection function to prevent cutting fluid from entering the spindle bearing.
- It is applicable to the processing of complex parts such as small to medium-sized housing, plates, disc, valves, shells, dies and the like.

Focus on Heavy Cutting! Steady! Strong Structure!

# STEADY HEAVY DUTY MACHINING BASED ON RIGID STRUCTURE

## The Machine Structure will Definitely Meet Your Expectations!

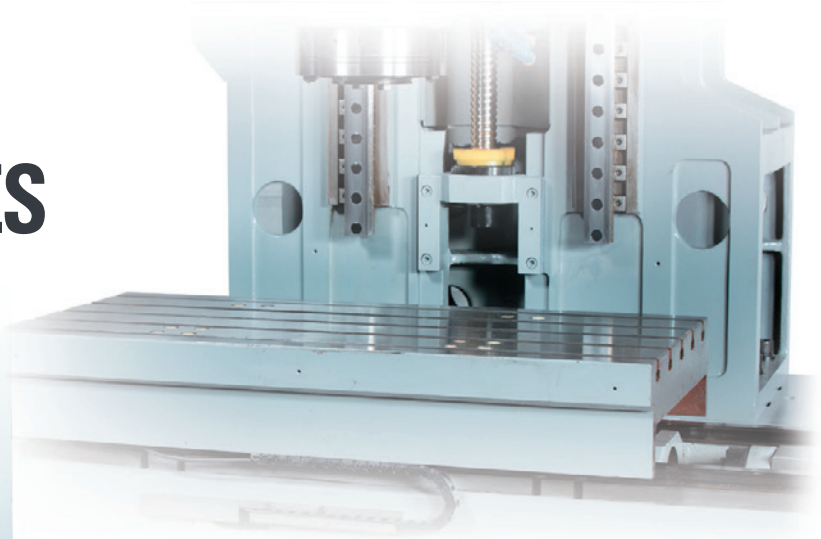
- Ultra-high dynamic accuracy
- Minimum thermal displacement
- Finely machined surface



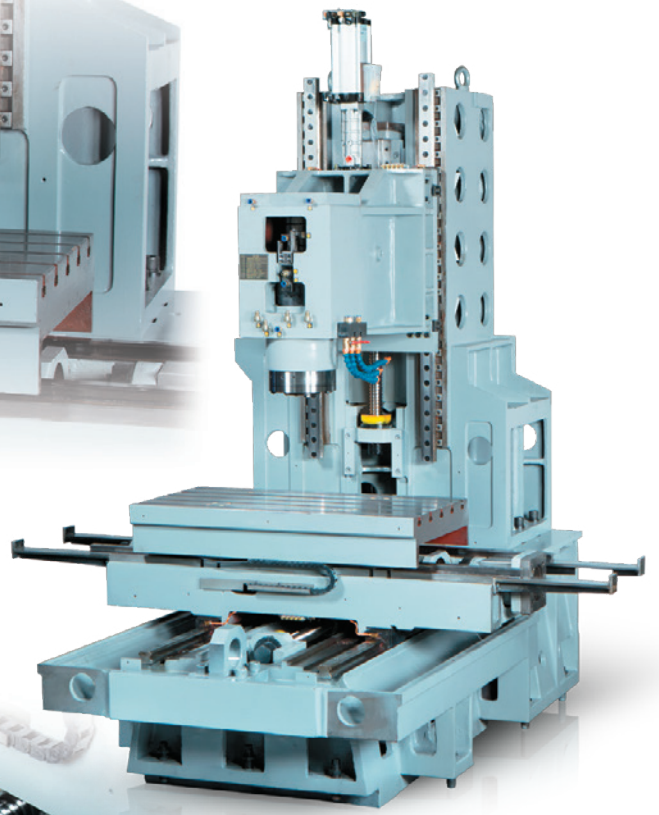
# INTRODUCTION OF SPINDLE AND ACCESSORIES

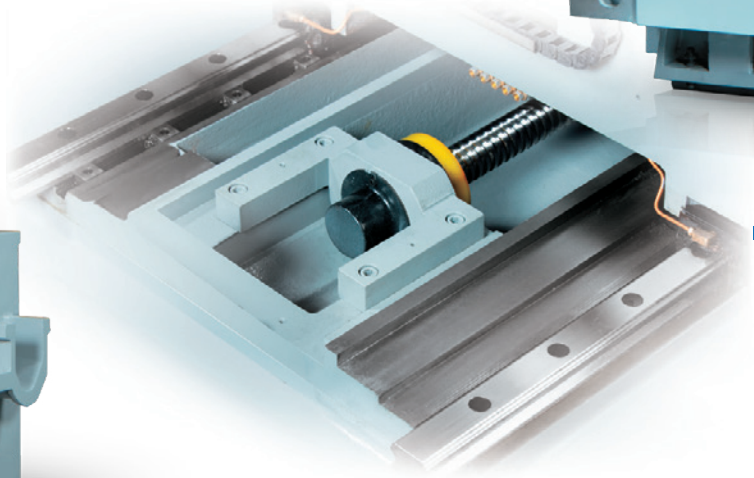
## High Rigidity Structure Design

The structural design of the new reinforced engine housing, combined with dynamic analysis and FEM finite element analysis, adopts high-strength Meehanite casting, showing ultra-high cutting efficiency and machining stability, and meets the strict requirements of high-speed and high-efficiency machining.



- The ultra-wide and high rigid column adopts the cross rib structure, and the installation position of the tool magazine is shoulder-mounted (non-side-mounted).

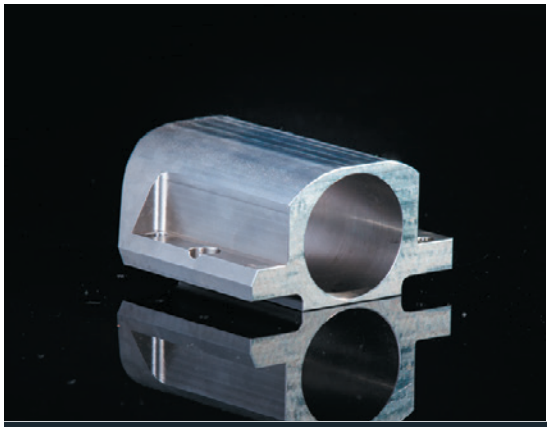


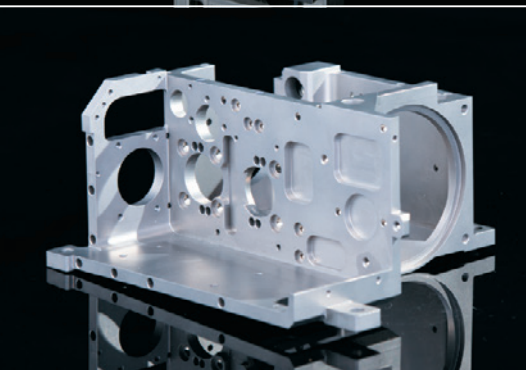


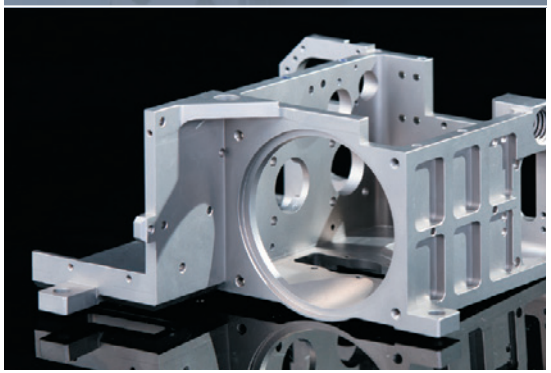
- Super-large base, ultra-wide slide way span and A-shaped or cross rib structure can effectively disperse the load of the machine, improve the vibration absorption effect and effectively reduce the deformation generated during the operation of the machine.

- High rigidity and high precision rail design are adopted in the whole stroke to ensure axial feeding accuracy and durability.
- Axial feed is pre-tensioned and assembled, and driven by servo motor direct drive, which effectively eliminates backlash and vibration problems.
- Z-axis is designed without counterweight and controlled by high-power servo motor with brake, so as to avoid the vibration caused by the repeated movement of traditional counterweight up and down to improve the smoothness of machined surface.

# INTRODUCTION OF MACHINING CAPACITY







Note: Above cutting test data are for reference only, and will vary according to the cutting conditions of customers.



# QUALITY ASSURANCE

## Perfect Quality Comes from Strict and Thorough Quality Control

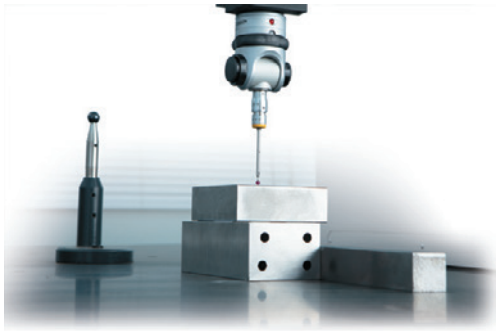
### Dynamic Balance Correction

All spindle motors and spindles are subject to dynamic balance correction before being assembled to avoid resonance problems at high speeds to ensure high accuracy of machining.

### On-line Dynamic Balance Test

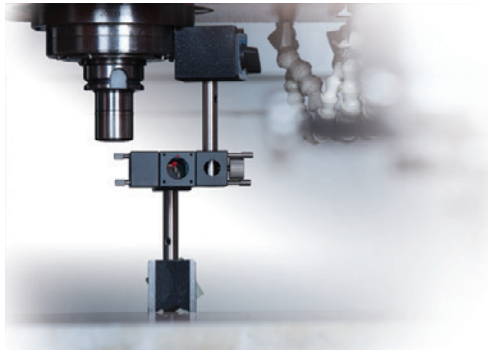
On-line dynamic balance equipment is used to test the speed, displacement and acceleration characteristics when the spindle is at the highest speed.

### Three-dimensional Measuring Instrument



### Circularity Test

After each machine is assembled, the circle measuring instrument is used to correct the true circle accuracy and the geometric accuracy of the machine; and the circular cutting test is carried out to ensure the 3D machining accuracy and circular smoothness of the machine.



### Triaxial Laser Inspection

Each machine is calibrated by laser, which provides precise inspection and correction for screw pitch error, backlash, positioning accuracy and repeated accuracy to ensure the dynamic, static stability and machining accuracy of the machine.

Sheet 3rd Line

# SPECIFICATION

| Series | | EVMC Series | | | EVMC Series | | EVMC Series | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | **UNIT** | **EVMC-540** | **EVMC-600** | **EVMC-800** | **EVMC-850** | **EVMC-855** | **EVMC-1160** | **EVMC-1160** | **EVMC-1370** | **EVMC-1370** | **EVMC-1580** | **EVMC-1690** | **EVMC-1890** |
| **Item** | | Triaxial Rail | | | | | Triaxial Rail | | | | | | |
| Workbench | | | | | | | | | | | | | |
| Workbench Area (L x W) | mm | 650x400 | 700x420 | 1000x500 | 1000x500 | 1000x550 | 1200x600 | 1200x600 | 1500x700 | 1400x700 | 1700x800 | 1800x900 | 2000x900 |
| T-slot (Width X Number of Slots X Spacing) | mm | 14x3x125 | 14x3x125 | 18x5x100 | 18x4x125 | 18x5x160 | 18x5x110 | 18x5x100 | 22x5x135 | 18x5x125 | 22x5x135 | 22x5x165 | 22x5x165 |
| Maximum Load | kg | 250 | 250 | 350 | 500 | 500 | 800 | 800 | 1000 | 700 | 1500 | 1600 | 1600 |
| **Route** | | | | | | | | | | | | | |
| X Axis Stroke | mm | 500 | 600 | 800 | 800 | 800 | 1100 | 1100 | 1300 | 1300 | 1500 | 1600 | 1800 |
| Y Axis Stroke | | 400 | 450 | 500 | 500 | 550 | 600 | 600 | 700 (four rails) | 700 (second track) | 800 (four rails) | 900 (four rails) | 900 (four rails) |
| Z Axis Stroke | mm | 300 | 300 | 330 | 500 | 550 | 600 | 600 | 700 | 700 | 700 | 800 | 800 |
| Distance from Spindle Nose to Workbench | mm | 150-450 | 150-450 | 150-480 | 130-630 | 120-670 | 150-750 | 120-720 | 120-820 | 120-820 | 170-870 | 160-960 | 160-960 |
| Distance from the Center of the Spindle to the Slide Surface of the Machine Column | mm | 464 | 464 | 546 | 535 | 590 | 680 | 650 | 740 | 770 | 850 | 960 | 960 |
| **Spindle** | | | | | | | | | | | | | |
| Transmission Mode | | Straight Type (Z) | Straight Type (Z) | Straight Type (Z) | Straight Type (Z) | Straight Type (Z) Belt Type (P) | Straight Type (Z) | Straight Type (Z) Belt Type (P) | Straight Type (Z) | Straight Type (Z) Belt Type (P) | Belt Type (P) | Belt Type (P) | Belt Type (P) |
| Spindle Cone Hole | | BT30 | BT30 | BT30 | BBT40 | BT40 | BBT40 | BT40 | BT40 | BT40 | BT50 | BT50 | BT50 |
| Spindle Speed | rpm | 20000(Z)/12000(Z) | 20000(Z)/12000(Z) | 20000(Z)/12000(Z) | 12000(Z)/15000(Z) | 12000(Z)/10000(P) | 12000(Z)/15000(Z) | 12000(Z)/10000(P) | 12000(Z)/15000(Z) | 12000(Z)/10000(P) | 8000(P) | 8000(P) | 8000(P) |
| **Feed** | | | | | | | | | | | | | |
| Cutting Feed | mm/min | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 | 1-10000 |
| Fast Feed (X/Y/Z) | m/min | 48/48/48 | 48/48/48 | 48/48/48 | 24/24/20 | 48/48/36 | 24/24/20 | 36/36/24 | 20/20/20 | 36/36/24 | 20/20/20 | 20/20/20 | 20/20/20 |
| Minimum Feed Rate | mm | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| **Precision** | | | | | | | | | | | | | |
| Positioning Accuracy | mm | 0.010 | 0.010 | 0.010 | 0.008 | 0.010 | 0.008 | 0.010 | 0.010 | 0.012 | 0.012 | 0.012 | 0.012 |
| Repetitive Positioning Accuracy | mm | 0.006 | 0.006 | 0.006 | 0.005 | 0.006 | 0.005 | 0.006 | 0.006 | 0.008 | 0.008 | 0.008 | 0.008 |
| Control System | | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus | FANUC 0i-MF Plus |
| Spindle Motor Power | kW | 3.7/5.5 | 3.7/5.5 | 3.7/5.5 | 11/15 9/11/15 | 11/15(Z) 7.5/11(P) | 11/15 9/11/15 | 11/15 | 11/15 9/11/15 | 11/15 | 15/18.5 | 15/18.5 | 15/18.5 |
| Triaxial Motor Power (X/Y/Z) | kW | 2.5/2.5/2.7 | 2.5/2.5/2.7 | 2.5/2.5/2.7 | 3/3/3 | 3/3/3 1.8/1.8/3(P) | 3/3/3 | 3/3/3 | 3/3/3 | 3/3/3 | 3/3/3 | 3/3/3 | 3/3/3 |
| **Tool Magazine** | | | | | | | | | | | | | |
| Tool Magazine Type | | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type | Disc Type |
| Tool Magazine Capacity | | 21 | 21 | 21 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Tool Diameter (full tool)xLength | mm | Ø60x200 | Ø60x200 | Ø60x200 | Ø78x300 | Ø78x300 | Ø78x300 | Ø78x300 | Ø78x300 | Ø78x300 | Ø110x300 | Ø110x300 | Ø110x300 |
| **Installation Requirements** | | | | | | | | | | | | | |
| Power Capacity | KVA | 15 | 15 | 15 | 25 | 25 | 25 | 25 | 30 | 25 | 35 | 35 | 35 |
| Air Pressure | $Kgf/cm^2$ | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 | 6-8 |
| Overall Dimensions (W x D x H) | mm | 1760x2360x2200 | 1760x2360x2200 | 1960x2460x2360 | 2615x2900x2350 | 2600x2830x2410 | 2935x2880x2410 | 2935x2880x2410 | 3800x3200x3350 | 3800x3200x3350 | 4336x3920x3160 | 4850x4235x3150 | 4850x4235x3150 |
| Machine Weight (approx.) | kg | 2700 | 3000 | 3500 | 6500 | 4800 | 7500 | 6500 | 11000 | 7500 | 13000 | 15000 | 16000 |

# STANDARD | OPTIONAL

**BT20000-30rpm BT12000-40rpm BT6000-50rpm**
**OPT. 24000/15000/10000/8000 rpm**

## Standard Accessories

1. FANUC0i-MFPlus Controller
2. Full-cover sheet metal+ water tank
3. Triaxial telescopic sheet metal
4. Horizontal adjusting screw and cushion block
5. Spindle oil temperature cooling system
6. Electric box heat exchanger
7. Automatic lubrication system
8. Tricolor warning light
9. Waterproof fluorescent light
10. Transformer
11. Full-function operation panel
12. Toolboxes and adjustment tools
13. Cutting water cooling system
14. Transmission: Ethernet+USB interface+ CF card interface
15. 24 arm-type tool magazine
16. Manual pulse generator: handwheel
17. Cleaning device inside the machine: air gun
18. Operation/System Instructions

## Select Attachments

1. Siemens control system
2. 36/30 arm-type tool magazine
3. Automatic tool length measuring device
4. Work piece measuring device
5. Central water outlet device
6. Electrical box cooling air conditioning
7. Fourth-axis rotary workbench
8. Optical ruler
9. Water gun
10. Screw chip removing machine
11. Sheet Metal Chain Chip Remover
12. Built-in spindle


## High-pressure Automatic Lubricator

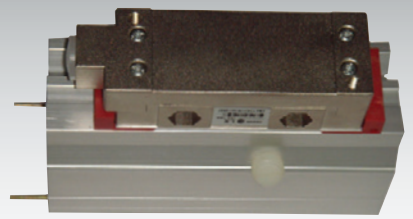
- With positive displacement oil distributor, all lubrication points are released when pressure is reached.
- The oil pipe has the characteristics of pressure detection and feedback, which can detect whether the pipe is blocked or leaked to ensure all lubricating points of the machine are properly lubricated at any time, and prolong the service life and precision of the machine.

## Spindle Oil Temperature Cooler

Spindle oil temperature cooler can adjust and control the spindle temperature change appropriately according to the situation. The cooler provides excellent cooling effect for gears stabilizes the precision of the main shaft and prolongs the service life of the spindle and gearbox.


## High-performance Tool Arm Type Tool Magazine

- Short tool change time.
- Low failure rate.



Optical Ruler

4th Axis Rotary Workbench

# DOUBLE COLUMN MACHINE CENTER

## Best Machine Design Ensures Perfect Machining Efficiency

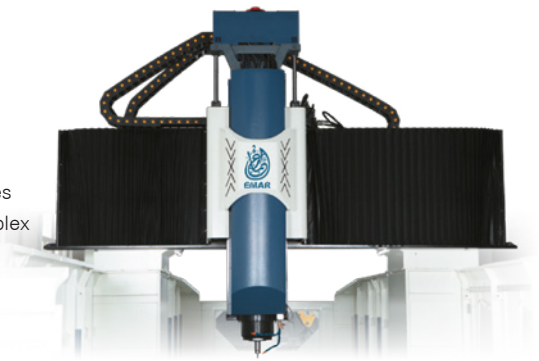







### Elaboration Makes Perfection

Each gantry type cutting center is finely crafted, focusing on the capability of heavy cutting.



### Elaboration Makes Perfection

Its unique rigid structure, superior processing capabilities and precision can be applied to large work pieces, complex work pieces and precision molds, which can completely meet your requirements! Machine specifications can be customized for special processing requirements.

### Applied Industry

- Energy Industry
- Heat exchanger
- Wind power generation industry
- Automobile industry
- Power generation equipment
- Shipbuilding industry

Focus on Heavy Cutting! Steady! Strong Structure!

# STEADY HEAVY DUTY MACHINING BASED ON RIGID STRUCTURE

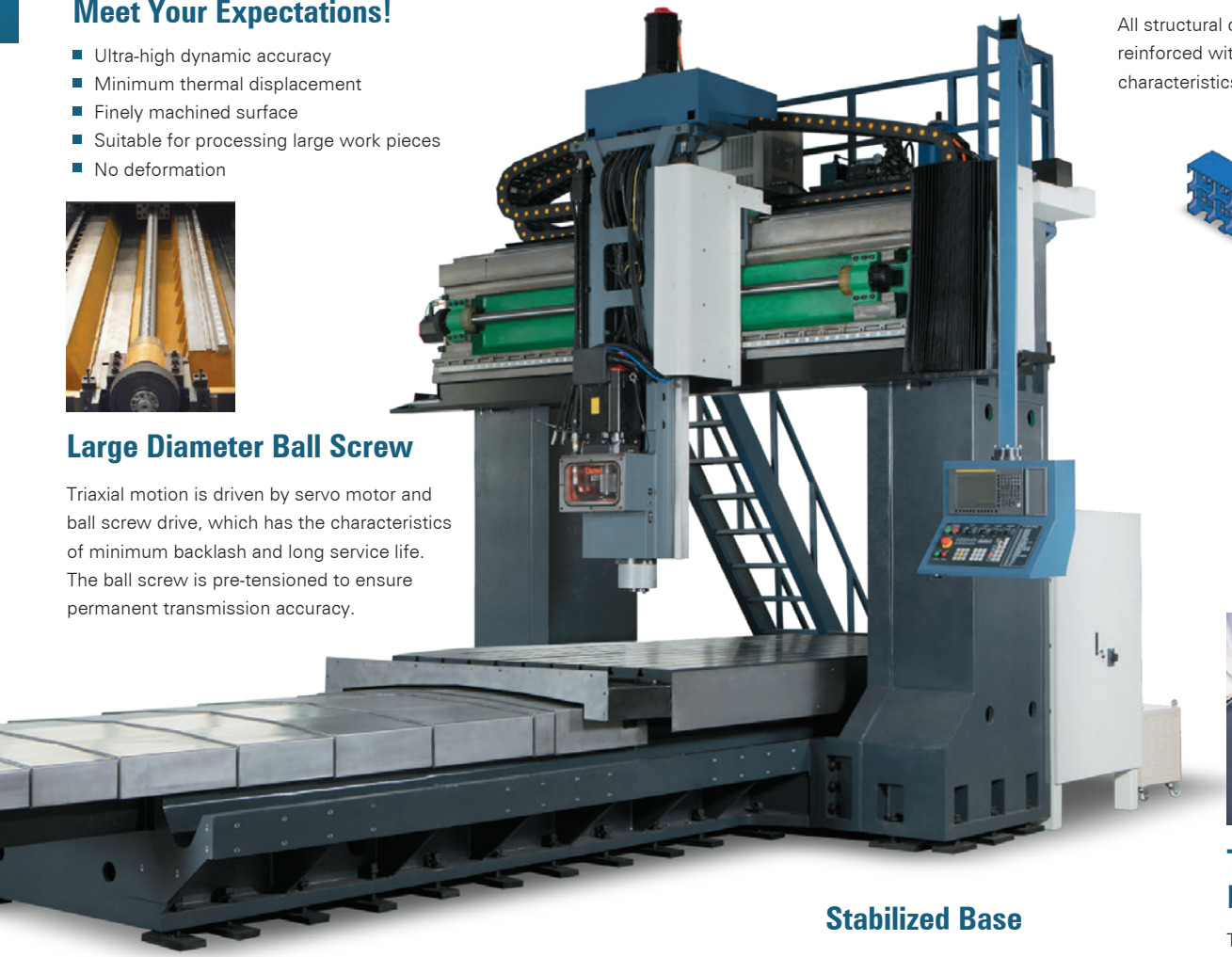
## The Machine Structure will Definitely Meet Your Expectations!

- Ultra-high dynamic accuracy
- Minimum thermal displacement
- Finely machined surface
- Suitable for processing large work pieces
- No deformation



## Large Diameter Ball Screw

Triaxial motion is driven by servo motor and ball screw drive, which has the characteristics of minimum backlash and long service life. The ball screw is pre-tensioned to ensure permanent transmission accuracy.



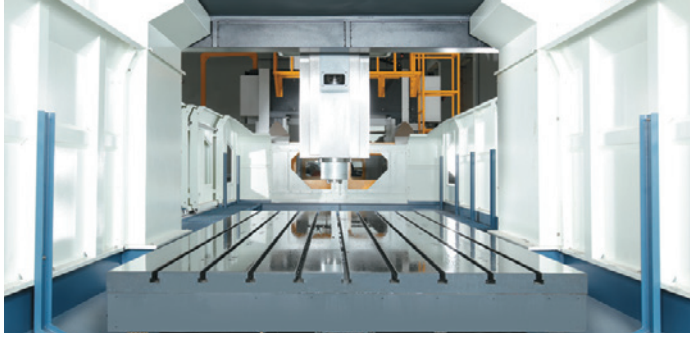
## Stabilized Base

The base is made of high-grade Meehanite cast iron and then tempered and stress relieved to ensure the stability of the material. Even if the machine is used for a long time, it will not deform. The dense rib reinforcement inside the substructure, coupled with the extra-large span between the rails, provides the most stable support for the load.



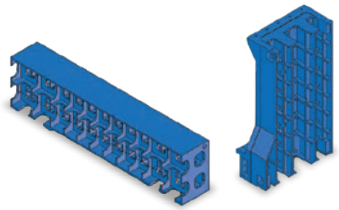
## Super-large Internal Space

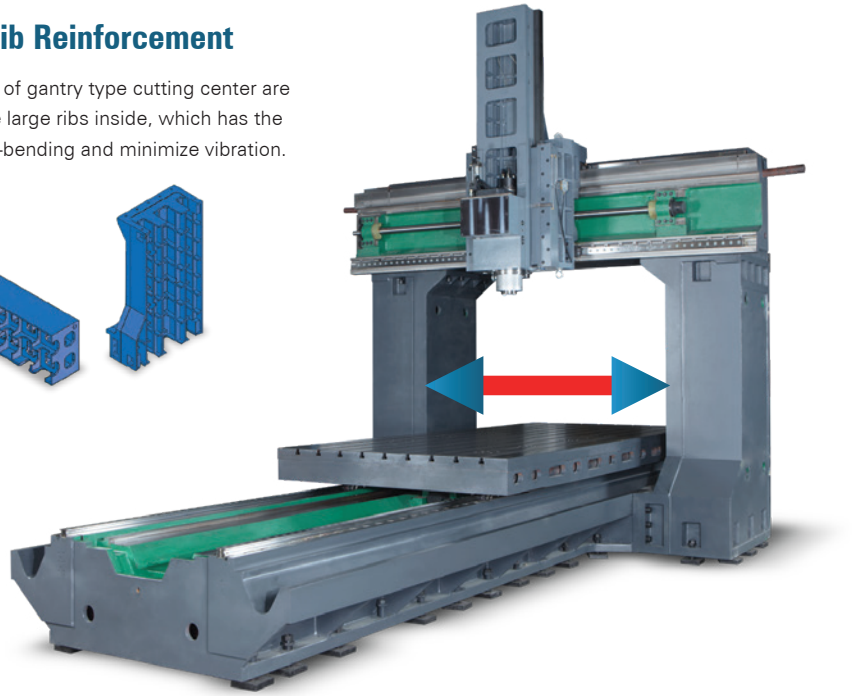
The machine is suitable for processing large work pieces because of its wide distance between the columns and the long stroke design.

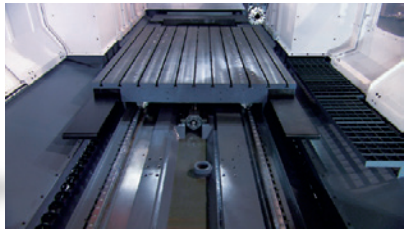


## Rationalized Rib Reinforcement

All structural castings of gantry type cutting center are reinforced with dense large ribs inside, which has the characteristics of anti-bending and minimize vibration.







## The Base is Attached with Double Chip-winding Screws

The left and right sides of the base are equipped with a set of chip-winding screws, which can convey the iron chips to the crawler conveyor and keep inside of the machine clean at any time.

## The Rail of the Cross Beam is Arranged in Steps

The rail on the cross beam adopts a stepped configuration to improve the stability of the spindle head. The rail is a heavy load roller rail, and each branch rail is provided with 3 sliders to effectively strengthens the rigidity of the Y axis.

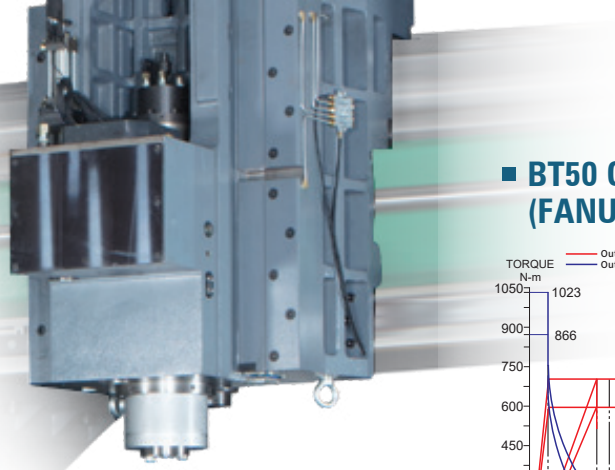
# INTRODUCTION OF SPINDLE AND ACCESSORIES

## Nitrogen Cylinder Balance System

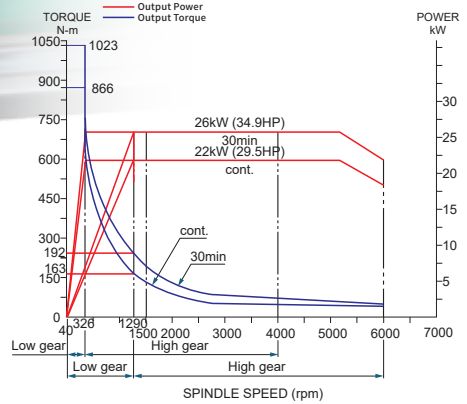
Nitrogen cylinder balancing system is equipped with pressure accumulator, and no additional power unit is needed. This balancing system can ensure the stability of spindle movement to improve machining accuracy

## Spindle Oil Temperature Cooler

Spindle oil temperature cooler can adjust and control the spindle temperature change appropriately according to the situation. The cooler provides excellent cooling effect for gears, stabilizes the precision of the spindle, and prolongs the service life of the spindle and gearbox

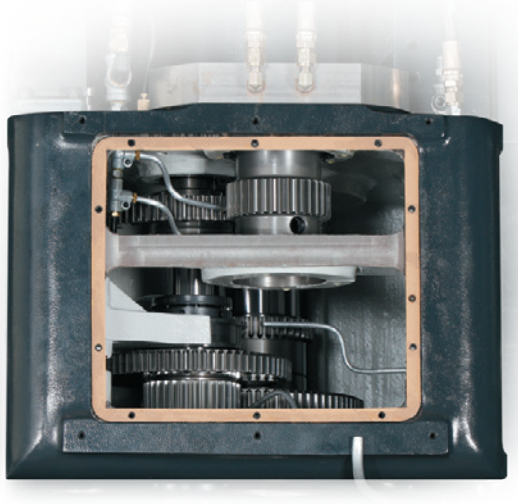


## BT50 Gear 6,000 rpm (FANUC α 7,000/22)




## Two-stage Variable Speed Gearbox

The spindle is driven by the gearbox, and it can provide high-low speed change. Large torque output through low-speed gear is suitable for heavy cutting operation. High speed gear is suitable for light cutting and surface machining. All gears in the gearbox are carburized and precision ground, which makes the operation low noise.



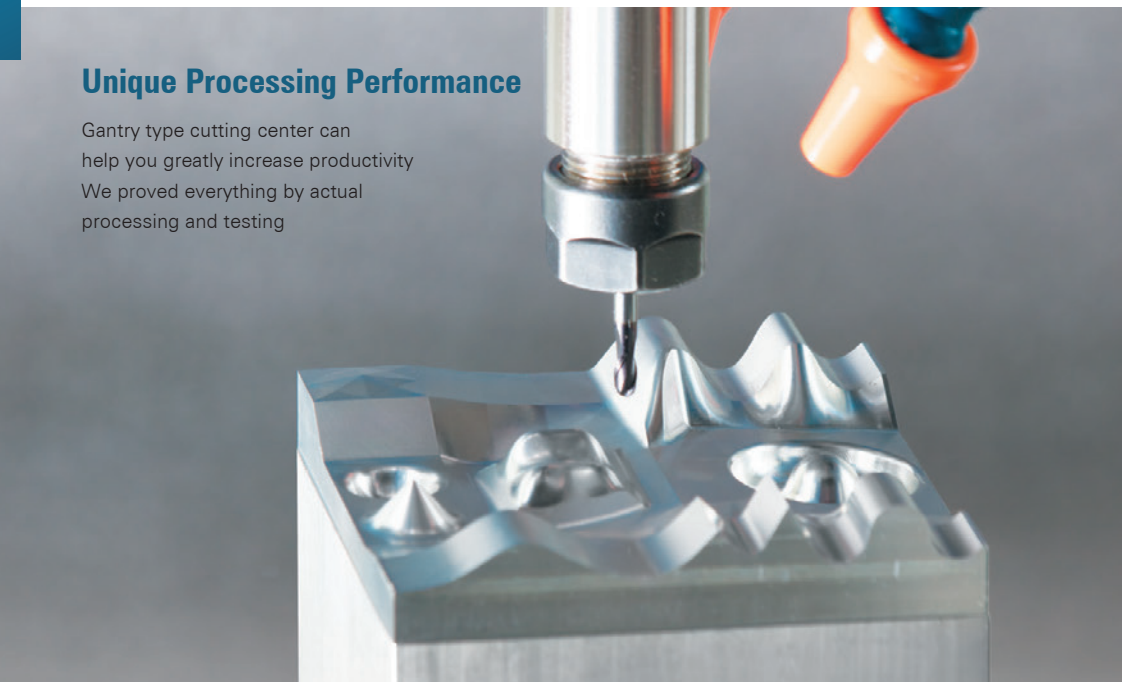
## Gear-driven Spindle Head

The spindle center is close to the Z-axis slide way, which greatly reduces the bending deformation caused by thermal displacement or lateral machining torque. The spindle is driven by a powerful motor, which can adapt to various complicated machining and has high-precision performance.

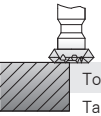
# INTRODUCTION OF MACHINING CAPACITY

## Unique Processing Performance

Gantry type cutting center can help you greatly increase productivity We proved everything by actual processing and testing

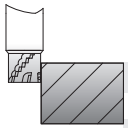


## Process Test Report



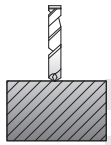
### Face Milling

| | |
|---|---|
| Tool used: | **Ø125 x 8t** |
| Tangential speed: | **295.35 m/min** |
| Cutting width: | **120mm** |
| Cutting depth: | **4mm** |
| Cutting feed rate: | **140 mm/min** |
| Cutting amount per blade: | **0.27 mm** |
| Material removal rate: | **756 mm** |
| Workpiece material: | **S45C** |
| Spindle load: | **%80** |



### End Milling

| | |
|---|---|
| Tool used: | **Ø32 x 8t** |
| Tangential speed: | **158.6 m/min** |
| Cutting width: | **6mm** |
| Cutting depth: | **20mm** |
| Cutting feed rate: | **120 mm/min** |
| Cutting amount per blade: | **0.21 mm** |
| Material removal rate: | **187 c.c / mm** |
| Workpiece material: | **S45C** |
| Spindle load: | **%65** |



### Drill

| | |
|---|---|
| Tool diameter: | **Ø56mm** |
| Tool material: | **Alloy steel** |
| Cutting depth: | **40 mm** |
| Cutting feed rate: | **70 mm/min** |
| Workpiece material: | **S45C** |
| Spindle load: | **%80** |

Note: The above cutting test data are for reference only, and will vary according to the cutting conditions of customers.



# QUALITY ASSURANCE

## Perfect Quality Comes from Strict and Thorough Quality Control

### Dynamic Balance Correction

All spindle motors and spindles are subject to dynamic balance correction before being assembled to the machine to avoid resonance problems at high speeds to ensure high accuracy of machining.

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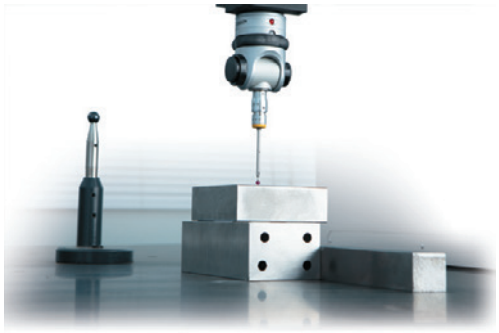
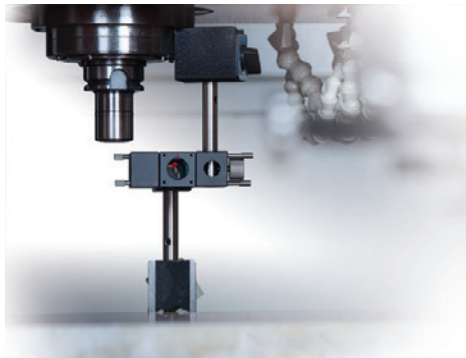
On-line dynamic balance equipment is used to test the speed, displacement and acceleration characteristics, when the spindle is at the highest speed.

## Three-dimensional Measuring Instrument



### Circularity Test

After each machine is assembled, the circle measuring instrument is used to correct the true circle accuracy and the geometric accuracy of the machine. The circular cutting test is carried out to ensure the 3D machining accuracy and circular smoothness of the machine.



### Triaxial Laser Inspection

Each machine is calibrated by laser, which provides precise inspection and correction for screw pitch error, backlash, positioning accuracy and repeatability accuracy to ensure the dynamic static stability and machining accuracy of the machine.

## Model (Gantry Series)

# SPECIFICATION

| Series (Width of Gantry) | | 12/13 Series | 15 Series | 16 Series | 18 Series | 22 Series | 25 Series | 28 Series | 32 Series | 36 Series | 38 Series |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Model** | **UNIT** | **EGMC-1222/1320/1325** | **EGMC-1520/1525/1530** | **EGMC-1620/1625/1630** | **EGMC-1820/1825/1830** | **EGMC-2202/2203/2204 EGMC-2205/2206/2208** | **EGMC-2503/2504/2505 EGMC-2506/2508** | **EGMC-2803/2804/2805 EGMC- 2806/2807/2808** | **EGMC-3203/3204/3205 EGMC- 3206/3207/3208** | **EGMC-3603/3604/3605 EGMC-3606/3607/3608** | **EGMC-3803/3804/3805 EGMC-3806/3807/3808** |
| X Axis Stroke | mm | 2200/2000/2500 | 2000/2500/3000 | 2000/2500/3000 | 2000/2500/3000 | 2000/3000/4000 5000/6000/8000 | 3000/4000/5000 6000/8000 | 3000/4000/5000 6000/7000/8000 | 3000/4000/5000 6000/7000/8000 | 3000/4000/5000 6000/7000/8000 | 3000/4000/5000 6000/7000/8000 |
| Y Axis Stroke | mm | 1200/1300/1300 | 1600 | 1600 | 1800 | 2200 (2600) | 2500 (2800) | 2800 (3400) | 3200 (3800) | 3600 | 3800 |
| Z Axis Stroke | mm | 800 | 800 | 800 | 800 | 1000/1250 | 1000/1250 | 1000/1250 | 1000/1250 | 1000/1250 | 1000/1250 |
| Workbench Area (W x L) | mm | 1000x2200/1100x2000 1100x2500 | 1300x2000/2500/3000 | 1300x2000/2500/3000 | 1620x2000/2500/3000 | 1800(2000)x2000/3000 4000/5000/6000/8000 | 2000(2200)x3000/4000 5000/6000/8000 | 2400x3000/4000/5000 6000/7000/8000 | 2800x3000/4000/5000 6000/7000/8000 | 2800x3000/4000/5000 6000/7000/8000 | 2800x3000/4000/5000 6000/7000/8000 |
| T-slot Width (Number-Dimension x Spacing) | mm | 7-22x145 (12 Series) 7-22x150 (13 Series) | 7-22x175 | 7-22x175 | 9-22x180 | 9-22x180 9-22x200 | 9-22x180 11-22x200 | 11-28x200 | 13-28x200 | 13-28x200 | 13-28x200 |
| Maximum Load of Workbench | T | 3/4/5 | 4/5/6 | 4/5/6 | 4.5/5.5/6.5 | 8/12/16/20/25/30 | 13/17/22/25/30 | 12/15/18/21/24/27 | 12/15/18/21/24/27 | 12/15/18/21/24/27 | 12/15/18/21/24/27 |
| Distance Between Two Columns | mm | 1200/1300 | 1500 | 1600 | 1800 | 2200 | 2500 | 2800 | 3200 | 3600 | 3800 |
| Distance from Spindle Nose to Workbench | mm | 60-860/145-945 | 185-985 | 185-985 | 200-1000 | 250-1250/250-1500 | 250-1250/250-1500 | 250-1250/220-1470 | 250-1250/220-1470 | 250-1250/220-1470 | 250-1250/220-1470 |
| Taper of Spindle Hole, Tool Arbor | | BT-40/BT-50/HSK-A63 | | | | | | BT-50/BBT-50 | | | |
| Speed of Primary Axis | rpm | 6000/8000 Belt (P) 12000/15000 Direct-Connected (Z) 20000 Electric Spindle (D) 6000 Gear Head (C) | | | | | | 6000 Belt (P)/6000 Gear Head (C)/6000 Square Ram Gear Head (FC)/10000 Direct-Connected (Z) | | | |
| Control System | | FANUC 0i-MF Plus | | | | | | FANUC 0i-MF Plus | | | |
| Horsepower of Primary Axle (30 minutes dead frame/continuous) | KW | 11/15(Z) 15/18.5(P) 15(D) | 11/15(Z) 15/18.5(P)(C) 15(D) | 11/15(Z) 15/18.5(P)(C) 15(D) | 11/15(Z) 15/18.5(P)(C) 15(D) | 22/26 | 22/26 | 22/26 | 22/26 | 22/26 | 22/26 |
| Three-axis Servo Power (X/Y/Z) | KW | 3/3/3 | 3/3/3 | 3/3/3 | 3/3/3 | 6(9)/7/7 | 6(9)/7/7 | 6(9)/7/7 | 6(9)/7/7 | 6(9)/7/7 | 6(9)/7/7 |
| Fast Feed Speed (X/Y/Z) | m/min | 12/10/10 | 12/10/10 | 12/12/10 | 12/12/10 | 8/10/10 | 8/10/10 | 8/10/10 | 8/10/10 | 8/10/10 | 8/10/10 |
| Cutting Feed Speed (X/Y/Z) | mm/min | 10000/7500/7500 | 10000/7500/7500 | 10000/10000/7500 | 10000/10000/7500 | 6000/7500/7500 | 6000/7500/7500 | 6000/7500/7500 | 6000/7500/7500 | 6000/7500/7500 | 6000/7500/7500 |
| Positioning Accuracy (X/Y/Z) | mm | 0.016/0.016/0.016 | 0.016 (3000mm：0.020) /0.016/0.016 | | | X：2000mm:0.016, 3000mm:0.020, 4000mm:0.025, 5000mm:0.030, 6000mm:0.035,7000mm:0.040, 8000mm:0.040 Y：0.020 Z:0.016 | | | X：3000mm:0.020, 4000mm:0.025, 5000mm:0.030, 6000mm:0.035, 7000mm:0.040, 8000mm:0.040 Y:0.025 Z:0.016 | | |
| Repetition Positioning Accuracy (X/Y/Z) | mm | 0.012/0.012/0.010 | | | | X：2000mm:0.012, 3000mm:0.012, 4000mm:0.016, 5000mm:0.020, 6000mm:0.025,7000mm:0.030, 8000mm:0.030 Y：0.012 Z:0.010 | | | X：3000mm:0.012, 4000mm:0.016, 5000mm:0.020, 6000mm:0.025, 7000mm:0.030, 8000mm:0.030 Y:0.016 Z:0.010 | | |
| Tool Magazine Capacity | piece | 24/32/40/60 | | | | | | 24/32/40/60 | | | |
| Max Tool Diameter/ Adjacent Empty Tool Diameter | mm | Ø78/Ø150(Z)(D)/ Ø110/Ø210(C)(P) | | | | | | Ø110/Ø210 | | | |
| Max. Tool Length | mm | 300(Z)(D)/ 350(C)(P) | | | | | | 350 | | | |
| Maximum Tool Weight | kg | 7(Z)(D)/18(C)(P) | | | | | | 18 | | | |
| Connect the Power | KVA | 30 | 30 | 30 | 30 | 60 | 60 | 60 | 60 | 60 | 60 |
| Net Weight of Machinery | T | 17/14/16 | 18/20/21 | 19/21/22 | 22/23/25 | 28/37/38/40/42/46 | 38/39/42/44/48 | 41/48/54/61/63/70 | 43/50/56/63/65/75 | 45/52/58/65/67/77 | 46/53/59/66/68/78 |

Note：Our company can customize gantry machining centers of various specifications.

# STANDARD | OPTIONAL

**6000 RPM (BT50)**
**OPT. 24000/15000/12000/8000RPM**

## Standard Accessories

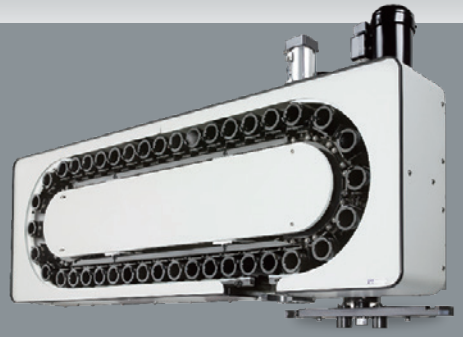
1. FANUC 0i-MF Plus Controller
2. Semi-closed sheet metal
3. Screw chip remover (both sides)
4. Crawler type cleaner and scrap iron car
5. Cutting water cooling system and water tank
6. Cutting and blowing device
7. Air gun
8. Nitrogen counterweight balance system
9. Electric box air conditioner
10. Transformer
11. Waterproof fluorescent light+ tricolor warning light
12. Transmission mode: Ethernet + USB interface + CF card interface
13. Foundation bolt and horizontal adjustment screw
14. Adjustment tool and tool box
15. Precision Inspection Table
16. FANUC Maintenance + Operation Manual
17. FANUC Servo System Fuse

## Select Attachments

1. Automatic tool length measuring device
2. Work piece measuring device
3. Central water outlet device
4. Fourth-axis rotary workbench
5. Full-automatic universal head
6. Full-automatic square head
7. Semi-automatic square head
8. Manual right angle head
9. Optical ruler
10. Chain magazine 60/40/32
11. Fully-closed sheet metal

## High-pressure Automatic Lubricator (standard)

- With positive displacement oil distributor, all lubrication points are released when pressure is reached.
- The oil pipe has the characteristics of pressure detection and feedback, which can detect whether the pipe is blocked or leaked, to ensure all lubricating points of the machine are properly lubricated to prolong the service life and precision of the machine.



## Chain Magazine 60 ,40 ,32 (optional)

- The tool magazine uses BT40/BT50/HSK-A63 tool shank.
- The tool magazine is independently installed beside the machine to avoid contamination of coolant.
- The number of tools can be specified by the customers.



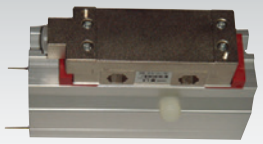
## Can be Matched with Various Milling Heads

Extended Head

Semi-automatic Square Head

Full-automatic Square Head

Full-automatic Universal Head



Optical Ruler

Various 90° milling Heads

4th Axis Rotary Workbench