





VMC1050 **Technical Data**







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Enterprise Culture



Z-MaT stands for Zhenhuan Machine Tool Company, one of the largest and fastest growing machine tool builders – worldwide. Z-MaT manufactures a wide range of CNC machines, which includes CNC Turning Centers, Horizontal CNC Lathes, Vertical Machining Centers, CNC Milling Machines and Special Purpose Machines.

In addition, Z-MaT is recognized for the company's advanced development and technological advantage in the field of live tooling products. Live tooling operations include axial and radial milling, drilling and tapping. These live tooling applications are available on a wide variety of Z-MaT CNC turning machines.

As of today, Z-MaT has more than 23 machine model series, with more than 100 models of CNC turning machines in the company product line. This broad line of CNC lathes has brought recognition to Z-MaT as a world-wide leader in precision turning machines.

With distribution around the world, investment from Hong Kong, research and development centered in Taiwan, and manufacturing/assembly in China, Z-MaT is a responsible international corporation. Z-MaT is known and recognized for providing unmatched support to customers, employees, and to the environment.

Z-MaT is committed to building partnerships with educational institutions, community organizations, governmental agencies and private companies. Our ultimate goal is to be a conscientious public partner in providing smart manufacturing solutions that serve industry and positively impact the world.

















Machine Characteristics

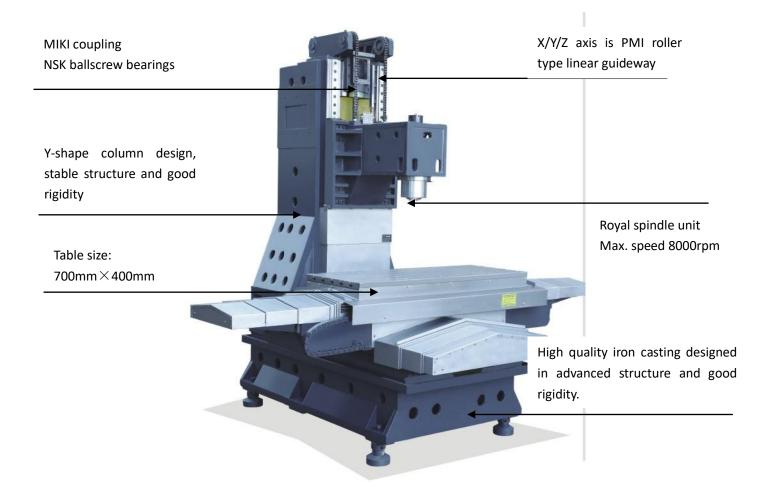
1. Appearance







2. Structure



- Advanced casting design uses precision annealing with traditional aging methods used on each casting. Provides optimal damping of vibration and ensures long-term stability and quality results.
- Both base and column have wide spacing between ways, resulting in a design that is solid as a rock and stable as a mountain.
- PMI roller type linear guideways is standard for three axes, the rating load is 150% over standard ball type linear guideways.
- High precision PMI ballscrew with pre-stretching assembly technology keeps machine in good processing accuracy in long time working and little thermal deformation.
- 4th axis rotary table is optional as flexible column design, offers extra function and meets different production requirements.



Standard Configurations

| No. | Name | No. | Name | |
|-----|--------------------------|-----|------------------------|--|
| 1 | Fanuc CNC system | 9 | Tool box | |
| 2 | Fanuc feeding system | 10 | Foundation pads | |
| 3 | Fanuc spindle motor | 11 | indicator light | |
| 4 | 24-station tool magazine | 12 | Lamp | |
| 5 | Spindle unit 8000rpm | 13 | Air conditioner | |
| 6 | Air gun | 14 | USB connector | |
| 7 | Coolant system | 15 | Rigid tapping function | |
| 8 | Auto lubrication system | 16 | Safety door switch | |

Options

| No. | Name | No. | Name |
|-----|--------------------------------|-----|-----------------------------------|
| 1 | Mitsubishi, Siemens, GSK | 7 | Auto tool setter |
| 2 | Coolant through spindle center | 8 | 4 th axis rotary table |
| 3 | Spindle oil coolant | 9 | Oil water separater |
| 4 | Chip conveyor and cart | 10 | 12000rpm direct driven spindle |
| 5 | Oil mist collector | 11 | M30 APO |
| 6 | Chip punching | | |

Main Parts List

| No. | Name | Manufacturer | Remark |
|-----|-----------------------------------|--------------|-------------|
| 1 | CNC System | FANUC | |
| 2 | Spindle Servo Motor | FANUC | |
| 3 | X/Y/Z Axis Servo Motor | FANUC | |
| 4 | Spindle bearings | NSK | |
| 5 | X/Y/Z Axis ballscrew bearings | NSK | |
| 6 | X/Y/Z Axis linear guideway | PMI | Roller type |
| 7 | Spindle unit | Royal | |
| 8 | Tool magazine | POJU | |
| 9 | Coolant pump | YUNHAI | |
| 10 | Lubrication pump | CHAORUN | |
| 11 | Pressurized cylinder assemblies | POJU | |
| 12 | Tool setter | RENISHAW | TS27R |
| 13 | X/Y/Z Axis couplings | MIKI | |
| 14 | Air conditioner | POINT | |
| 15 | 4 th axis rotary table | HW | |
| 16 | Spindle oil coolant | POINT | |



2. Famous Brand Function Parts



Lubrication Pump



Air Processing Unit



YUNHAI Coolant Pump



Schneider **Electrical Component**



POJU Tool Magazine



Point Air Conditioner



Rotary Table



Royal Spindle Unit



Chain Type Chip Conveyor

















































Partners & Quality Components

Z-MaT only uses high-quality, precision components in the manufacture of our line of professional quality, production grade CNC machines. While this step is more expensive, building quality components into our machines is the only way to achieve the quality results and long service life our customers have come to expect.



Technical Parameters

VMC1050

| | Table size | mm | 1300×520 |
|----------|------------------------------|--------------|-----------------|
| Table | T slot (width×nos.×distance) | mm | 18×5×90 |
| | Max. load | Kg | 600 |
| | X/Y/Z axis travel | mm | 1050/500/5600 |
| | Spindle nose to table | mm | 120-800 |
| Travel | Spindle center to column | mm | 580 |
| | X/Y/Z axis rapid traverse | m/min | 24/24/20 |
| | Guideway type | | Linear guideway |
| | Spindle type | | BT40 |
| Spindle | Main servo motor | kW | 11/15kW |
| | Spindle speed | rpm | 8000, 12000* |
| Magazine | ATC capacity/ type | No./ type | 24/Arm |
| Magazine | Max. weight of tool | Kg | 8 |
| | Power capacity | kVA | 21 |
| Others | Weight (about) | Kg | 6800 |
| | Overall dimension(L×W×H) | mm | 3000×2150×3000 |

Note: "*" means optional items