

# **GT260V**

# Multi Turrets Turning Center Series You Might Need A Helping Hand To Double The Machining Efficiency





# Multiple Turrets Multiply Your Production

Expanded machine functionality promises reduced cycle times. Suitable for a broad range of production processes.

This machine's development was driven by the demands of entrepreneurial manufacturers.

The Z-MaT GT260V combines the highest levels of reliability, accuracy and efficiency.

As a result of large production volume and well managed supply chain.

Z-MaT has produced a machine that operates at the highest levels of performance

- providing you with a powerful weapon for improving your competitive

# Designed

## With The Operator In Mind



The goal of machine tool manufacturers is to improve human life through improvements in machine technology and integration. Providing harmony between man and machine is demonstrated in every detail of the GT260V design.

The vertical bed design puts the double turrets in close proximity to the operator, allowing ease and convenience during set-up. Also the cutting thrust force and machine rigidity are increased by this design.



- Hydraulic Dashboard
- Accessories & Tool Box
- Alarm Lamp

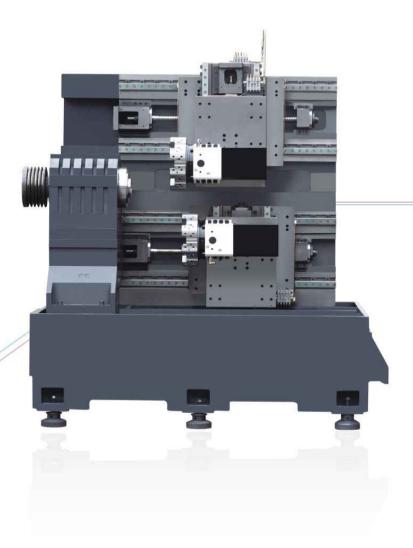
- Coolant Tank
- Central Auto Lubrication System
- Adjustable Control System Panel

## **User Friendly Operability**

The ergonomically designed operator interface is situated at an optimal height and has a swing arm to allow the operator to adjust the interface angle for ease and convenience. Frequently used buttons are conveniently located and easy to press. The MPG is a standard option and provides optimal visibility during machine set-ups.

This improves workability and helps malfunctions and mistakes. The difference in height of operators was considered in the design of the door handles. The door handle is elongated for easier opening and closing of the door. An enclosure for tooling and supplies is located just under the control panel. A separate coolant tank makes clean-up easy.

The automatic lubrication pump is located in an enclosure near the operator. It has a clear glass door for easy observation. Enclosing the pump keeps away chips and other contaminants. Hydraulic Dashboard are in the left and front side, chuck, turrets and general hydraulic pressure are all observed clear and neat.



# Machine Scientific Design Structure

By centering the machine symmetrical design from the spindle, heat is distributed evenly and accuracy during continuous machine is distinctly improved. Overall machining efficiency is increased.

#### **Z-MaT Multi-Turrets**

# GT260V Structure



Upper Turret Gang Type Tools As Option



Sub Turret Gang Type Tools As Option



90 Degree Monoblock Robust Bed Offers Super Rigidity



Upper X1/Z1 Slides



Sub X2/Z2 Slides



Large Span Solid Casting Base Provides Perfect Anti-vibration Performance



Double End Support and Pre-load Super Precision Ballscrew.



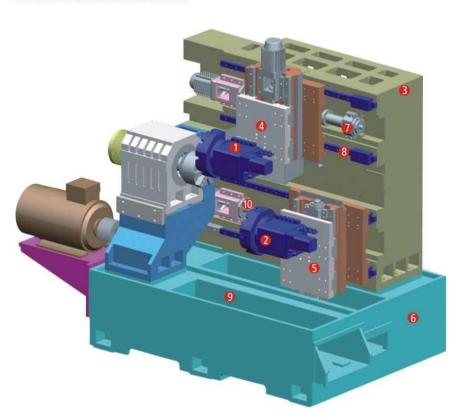
Cylindrical Roller Type Heavy Duty Linear Guideway.



Big Capacity Right Removal Chip Tank



Direct Transmission Servo Motor With Backlash Free Couplings



# Spindle

Z-MaT provides a variety of lathe spindles to match the requirements of a wide range of industries. Z-Mat spindles have a wide range of cutting parameters with different spindle characteristics to match your unique turning requirement in a way that assures you maximum efficiency and profitability.

Z-MaT's 100% owned spindle manufacturing subsidiary is constantly researching and developing new spindles to match a broader range of customer turning requirements. The GT260V has a number of spindle options in order to optimize the efficiency of this dual spindle powerhouse — for your application. We are here to help you maximize your processes and help you make more, and better quality parts.

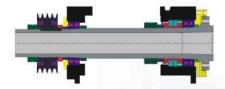
#### **Cartridge Type Spindle**

The Z-MaT cartridge spindles are sealed within a stainless steel housing as a complete unit. Easily replaceable and securely matched with a machine headstock that provides the foundation for better spindle dynamic balancing accuracy. Works well in high speed applications.



#### **Direct Mounted Spindle**

The Z-MaT direct mounted option matches the headstock manufacturing and assembly for optimum accuracy. Each manufactured headstock and spindle unit is assembled in a clean room under temperature controlled conditions. The larger sized spindles are supported by a double row of tapered cylindrical roller bearings, plus angular ball bearings and a double row cylindrical roller bearing in the rear for increasing rigidity. Small size spindle design adopts high precision angular ball bearing reduces noise and increases accuracy.



#### **Direct Driven Spindle**

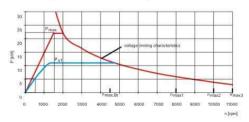
This electric spindle (Built-In Motor) offers high acceleration and deceleration, which shortens cycle times and increases efficiency. In addition, a machine with this spindle will operate with less vibration and lower noise. It is excellent for applications where finish and extreme accuracy are important.

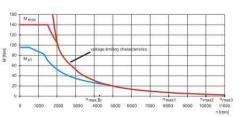


## Servo Spindle Motor Output Curve

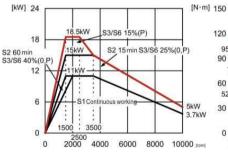
GT260V has different control system options. The characteristics of standard spindle motor for Siemens 828D and Fanuc of TF plus are shown as below.

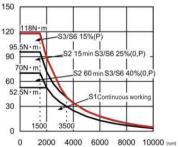
#### Siemens (SIMTICS M-1PH8131)

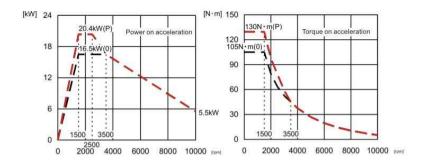




#### Fanuc Main spindle iI 12/10000-B







The spindle output torque is calculated by spindle pulley ratio

<sup>■ 1:2</sup> for direct mount spindle

<sup>1:1.5</sup> for cartridge spindle.

# **Servo Turret**



High Speed

The turret uses servo motors to shift the tool position which reduce tool change time essentially.



Heavy Duty

The turret uses hydraulic system to clutch. Powerful tool clamping minimizes tool tip deviation due to load, which displays excellent performance during heavy duty cutting.



High Accuracy

The turret uses high-precision tooth couplings for accurate positioning.

As double channel system with double turrets, all those advanced technology enlarged 2 times on GT260V. Machining cycle time is reduced, which improves productivity tremendously.





#### Fast Speed Turret On GT260V, Boost Your Production

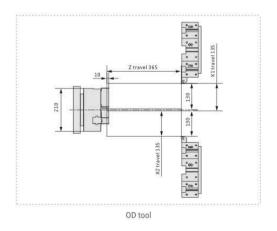
Adjacent tool change and lock time for 8-station turret

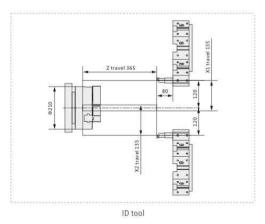
| Optional Hydraulic Turret    | 0.6s  |                  |
|------------------------------|-------|------------------|
| GT260V Standard Servo Turret | 0.39s | Save time -0.21s |

Opposite tool change and lock time for 8-station turret

| Optional Hydraulic Turret    |       | 2s               |
|------------------------------|-------|------------------|
| GT260V Standard Servo Turret | 0.53s | Save time -1.47s |

## **Working Capacity**





## **Tooling System**

# 8/12 Turret | Solution | Solutio

## **Tooling Interference**

Ф214 Ф220

# Feeling The Real Power

High Speed Tool Change Turret; Heavy Cast Body; Cylindrical Roller Linear Guideway; Large-Sized Ball Screws

This combination of rigid and agile hardware combines seamlessly with Double Channel Control System – offering two times the productivity and broadly expanded machine work capabilities and options.

#### Shown In The Video



https://youtu.be/aeAoVLxDtA0









# **Total Quality Management**

No matter how far technology may evolve, the one ongoing concern of CNC customer is, "Will the machine make my parts, with higher productivity and without a hassle-And at a price I can justify?" Customers deserve our best effort toward always providing quality, reliability, efficiency and low cost. We have introduced the concept of TPS-Toyota quality system including TQM-Total Quality Management, which involves integrated control of quality, not just of the products but also service and communication, and all

processes. We are working to provide quality that exceeds customer expectations. Our machine Quality inspection process is far beyond the standard in the industry. We combine scientific process, along with disciplined procedural systems to assure the highest quality total experience for our customers.

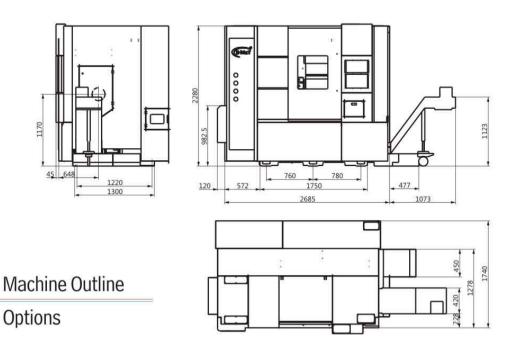
#### **Hand Scraping**

Expert Hand Scraping at Z-MaT machine, to achieve stable machining accuracy Every Z-MaT machine conducts strict hand Scraping process by skiller technicians, realizing perfect flatness squareness and straightness required for all surfaces and axes.





# **Specification and Options**





### Standard Features

- Hydraulic 3-Jaw Chuck
- 8-Station Turret
- Full Guard
- Work Light
- Tri-Color Alarm Light
- Automatic Lubrication System
- Automatic Coolant System

## **Optional Features**

- 12-Station Turret
- Different Chucks and Collets
- Different CNC Control Systems
- Different Spindle Speed and Bore Dia
- Chip Conveyor
- Tool Setter
- Bar Feeder
- Gang Type Tool Holders
- Parts Catcher
- Tailstock
- Driven tool Turret

## Specifications

|   |                            | Unit  | GT260V                 |
|---|----------------------------|-------|------------------------|
|   |                            |       |                        |
|   | Chuck Size                 | inch  | 8"                     |
| Capacity                                | Max Swing Dia. Over Bed    | mm    | Φ580                   |
|   | Max. Length of Workpiece   | mm    | 340                    |
|   | Max. Swing Dia. Over Slide | mm    | Φ210                   |
|   | Spindle Bore               | mm    | Ф62                    |
|   | Max Dia. of Through Hole   | mm    | Ф52                    |
| Spindle                                 | Spindle Nose               | type  | A2-6                   |
|   | Spindle Speed              | rpm   | 4000, *2000            |
|   | Main Motor Power           | kW    | 11/15                  |
| A 22.                                   | X1 Axis Travel             | mm    | 160                    |
|   | Z1 Axis Travel             | mm    | 350                    |
|   | X2 Axis Travel             | mm    | 160                    |
| Axis                                    | Z2 Axis Travel             | mm    | 350                    |
|   | X1/Z1 Rapid Traverse       | m/min | 20                     |
|   | X2/Z2 Rapid Traverse       | m/min | 20                     |
|   | Turret1 Stations           |       | 8                      |
| Turret                                  | Turret2 Stations           |       | 8                      |
|   | OD Tool Shank size         | mm    | 25                     |
|   | Boring Bar Size            | mm    | Φ40                    |
| *************************************** | Slant Bed Degree           |       | 90°                    |
|   | Guideway Type              |       | Linear Motion Guideway |
| Others                                  | Power Capacity             | KVA   | 20KVA                  |
|   | Overall Dimension          | mm    | 2850x1850x2300mm       |
|   | Weight (About)             | Kg    | 7000Kg                 |

Note: "\*" means optional.

# Z-MaT Smart CNC Solutions

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- Contact Z-MaT Sales Office for questions regarding catalog content.
   Catalog content is subject to change without notice. Z-MaT is not responsible for typographical errors.
   Images may show base machines with added optional equipment.
- · Specified bar feeder capacity matches the specified through hole capacity on hydraulic chuck and collet machine configurations. Bar capacity and spindle bore are the same diameter on machines with manual chucks.
- Actual machine standard features may differ in some details from machines shown in catalog images. This includes the size and dimensions of name plates and other labels.
- Z-MaT is not responsible for discrepancies between information in this catalog and actual machines.

#### Zhejiang Zhenhuan CNC Machine Tool Co., Ltd.

Zhejiang Headquarter and Plant: Add: Mechanical & electrical industrial zone, Yuhuan, Zhejiang, 317600 China Phone: +86-576-87226292 Fax: +86-576-87226290 www.zmat.cn E- mail:info@zmat.cn

Jiangsu Z-MaT No.2 Plant: Nanjing Zhenhuan Machinery Co., Ltd. No.1 Tugiao Industrial Zone, Jiangning District, Nanjing, Jiangsu.

Shandong Precision Spindle Unit Plant: Weihai Giessen Seiki Co., Ltd. No. 39-3 Hi-tech Industrial Zone, Weihai, Shandong,

Hong Kong Commercial Center: Kimway Dragon Holdings limited. 701A Caroline Centre, 2-38 Yun Ping Road, Hong Kong.

Taiwan R&D Center: GreaMaT Machinery Co., Ltd. No. 955, Section 4, Wenxin Rd., Beitun District, Taichung, Taiwan.



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