



SL580-MG

SL580-MT

TMC400Y

TMC40V

Smart CNC Solutions

# LIVE TOOLING & MULTI-TASKING MACHINE



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## Secondary Machining Operations

### Powerful Solution for Secondary Machining of Turned Parts

Z-MaT is a recognized leader in C Axis and live tooling technology. This strong core competence makes Z-MaT the go-to source for secondary machining operations. In addition to standard turning operations, with Z-MaT you can perform additional machining operations on a single machine – like milling, drilling, surface finishing and tapping on all surfaces. A Y axis unit is also available on many lathe models.



## LIVE TOOLING

### High Torque Secondary System

Z-MaT live tooling units feature a robust gear drive system that provides efficient power transmission and maximum continuous torque. An extra-large servo motor drive provides 50% more torque than comparable units on the market. Also, the use of quality ground transmission gears reduces noise levels at high speed.



### C Axis Motion

C Axis drive units provide high precision bi-directional spindle motion that is fully interpolated with X and Z axis movements. The unit is servo driven with a timing pulley and belt, and a powerful hydraulic brake locks the main spindle during secondary operations.



### Y Axis Motion

Z-MaT Y axis drive units are used for off center milling, drilling and tapping. Each Y axis model comes standard with C axis and live tooling capabilities and fully interpolates with C axis, X axis and Z axis movement. This combination provides a powerful, efficient solution for secondary machining of turned parts.



## Driven Toolholders List

Form	Position	Group tool nos	Max dia. of live tool	Max. speed
ER20	Radial, Axial, Vertical	1、2、3	φ 13mm	5000rpm
ER25	Radial, Axial, Vertical	1、2、3	φ 16mm	5000rpm
ER32	Radial, Axial, Vertical	1、2、3	φ 20mm	5000rpm

Able to fit for most existing Z-MaT models.



Polygon turn-mill driven toolholder

Axial and Radial elevation adjustable driven toolholder

Axial and radial index adjustable driven toolholder

Double lifting vertical driven toolholder

Double lifting axial driven toolholder

Er20 single driven toolholder

ER32 single driven toolholder

Group 4 vertical driven toolholder

Group 3 lifting axial and 3 radial driven toolholder

Group 2 lifting axial and 2 radial driven toolholder

Single lifting vertical driven toolholder

# MULTI-TASKING MACHINE

## Turn-Mill Machining Center

### 580mm X Axis Travel

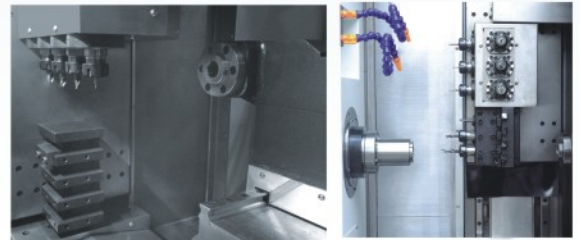
PLUS, an extra-long work table provides a large tool mounting area. This allows for a large number and variety of table mounted tooling options. This capacity makes the SL580M a powerful, "single set-up" turning center for turning, milling, tapping and drilling operations in a single part production cycle.

Smart operators can combine operations into a single machining center – saving on capital input and operating costs. SL580M owners report they have gained a competitive advantage with the addition of these machines to their production system.



## Machine Characteristics

- High quality castings provide optimal damping – reducing vibration and increasing rigidity. Best assurance of quality surface finishes.
- Advanced 90° vertical machine structure optimizes chip and coolant flow – PLUS, provides easy operator access for work and tool set-up.
- Single Set-up allows for turning, milling, drilling and tapping operations.
- Capable of C axis and 4 axis simultaneous machining.
- Modular design with many available configurations – such as tail stock and tooling combinations.



## Tooling Options

### Option # Tooling Included

1	Gang Tools
2	Gang Tools + (3) ER25 Axial Live Tools
3	Gang Tools + (4) ER25 Axial Live Tools
4	Gang Tools + (3) ER25 Radial Live Tools w/ Y Axis
5	Gang Tools + (3) ER25 Axial Live Tools & (3) ER25 Radial Live Tools w/ Y Axis
6	8-Station Turret + (3) ER25 Axial Live Tools
7	8-Station Turret + (4) ER25 Axial Live Tools
8	8-Station Turret + (3) ER25 Radial Live Tools w/ Y Axis
9	8-Station Turret + (3) ER25 Axial & (3) ER25 Radial w/ Y Axis
10	8-Station Turret + (3) ER25 Axial and (3) ER25 Radial Live Tools on Single Motor Driven Y Axis Unit
11	8-Station Turret + (4) ER20 Axial and (4) Radial Live Tools on Single Motor Driven Y Axis Unit



#### Warning:

Carefully consider your specific machining requirements and choose the best tooling combination for your application from the options listed above.

#### Tooling Option Labels:

- Gang Tools
- (3) ER25 Axial Live Tools
- (4) ER25 Axial Live Tools
- (3) ER25 Radial Live Tools w/ Y Axis
- (3) ER25 Axial and (3) Radial Live Tools w/ Y Axis
- 8-Station Turret
- (4) ER20 Axial and (4) Radial Live Tools w/ Y axis

# 4-Axis Simultaneous Multitasking Turning Centers

X, Y, Z axes are interpolated with C axis. Milling, drilling and tapping of complex shapes can be accomplished in one setup.



## Specifications

		Unit	SL580-MG	SL580-MT	TMC400Y	TMC40V
<b>Structure</b>	Bed incline degree		45°	45°	0°	90°
			Linear motion	Linear motion	Linear motion	Linear motion
<b>Capacity</b>	Guideway type		6" Hydraulic chuck/Hydraulic collet	6" Hydraulic chuck/Hydraulic collet	Hydraulic collet, *6", *8"	Hydraulic collet, *6", *8"
	Chuck/Collet		Φ380	Φ380	Φ400	Φ400
	Max. swing dia. over bed	mm	Chuck 280, *Collet 320	Chuck 220, *Collet 250	200	250
	Max. length of workpiece	mm	Φ90	Φ90	Φ120	Φ250
<b>Spindle</b>	Max. swing dia. over slide	mm	A2-5	A2-5	A2-5 *A2-6	A2-5 *A2-5 *A2-6
	Spindle type		Φ48	Φ48	Φ48 *Φ62	Φ48 *Φ55 *Φ62
	Spindle bore	mm	Φ40	Φ40	Φ40 *Φ52	Φ40 *Φ46 *Φ52
	Max. dia. of through hole	mm	3000	3000	3000 *2000	4500 *4500 *4000
	Spindle speed	rpm	*4500	*4500	*4500 *4000	
	Main motor power	kW	5.5/7.5	5.5/7.5	3.7/5.5, *5.5/7.5	5.5/7.5
<b>Axis</b>	X axis travel	mm	580	350	400	220
	Z axis travel	mm	320	250	250	320
	Y axis travel	mm	150	150	90	300
	X/Z/Y rapid traverse	m/min	20/20/15	20/20/15	7/10/10	12/12/12
<b>Toolpost</b>	Toolpost type		Gang type tools mixed with livetoolings	8-Station turret mixed with livetoolings	Gang type tools mixed with livetoolings	Gang type tools mixed with livetoolings
<b>Tailstock</b>	Taper of tailstock		No	No	No	MT4
	Travel of tailstock quill		No	No	No	100
<b>Others</b>	Power capacity	kVA	13	15	14	14KVA
	Overall dimension(LXWXH)	mm	2320X1820X1900	2320X1820X1900	2020X1450X1850	2350X1800X2300
	Weight (about)	kg	3600	3600	2500	3500

Note: "\*" means optional, "N/A" means not available.

## Z-MaT 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:  
 Shandong Precision Spindle Unit Plant:  
 Hong Kong Commercial Center:  
 Taiwan R&D Center:

Nanjing Zhenhuan Machinery Co., Ltd.  
 Weihai Giessen Seiki Co., Ltd.  
 Kimway Dragon Holdings limited  
 GreaMaT Machinery Co., Ltd.

No.1 Tuqiao Industrial Zone, Jiangning District, Nanjing, Jiangsu.  
 No.39-3 Hi-tech Industrial Zone, Weihai, Shandong.  
 701A Caroline Centre, 2-38 Yun Ping Road, Hong Kong.  
 No. 955, Section 4, Wenxin Rd., Beitun District, Taichung, Taiwan.