

Z-MaT



Smart CNC Solutions

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- Images show base machines with added optional equipment.
- Specified bar feeder capacity matches the specified table capacity on lathe with chuck and roller machine configuration. Bar capacity will vary based on the same diameter bar machines with manual chucks.
- Actual machine dimensions of lathe may differ in some details from end view shown in catalog images. This includes the size and dimensions of some plates and other labels.
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General Catalogue



Z-MaT Factory No. 2 Precision Manufacturing Base



Z-MaT Factory No. 2 Nanjing Manufacturing Base



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, Horizontal Machining Centers, Gantry Machining Centers and Special Purpose Machines.

In addition, Z-MaT is recognized for the company's advanced development and technological advantage in the field of modular manufacturing and solutions providing capability. Various spindles, guideways, tailstocks, CNC controllers, ferraris, live toolings, automatic auxiliary equipment and bed structures are available on a wide variety of Z-MaT CNC machines to optimize efficiency, stability and investment according to the customer's workplace requirements. Thousands of customers' competitive advantages are gained through tailor-made CNC Machines and Solutions provided by Z-MaT.

With distribution around the world, investment from Hong Kong, research and development centered in Taiwan, manufacturing and 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.



Timeline of Z-MaT Development:

- 1990** Established in 1990 as a mold and auto parts manufacturer. The early company was successful and experienced rapid growth. The company gained valuable experience using CNC machine tools in the manufacturing of the company's product line.
- 1999** In 1999 capital investment from Hong Kong expanded the company's capacity – pushing Z-MaT onto the international business stage.
- 2000** From 2000 onward Z-MaT made a variety of machine tools for use in the company's parts manufacturing. These tools dramatically increased productivity and cut costs.
- 2005** In 2005 Z-MaT moved out of auto parts manufacturing and fully committed the company's resources into the production of CNC machine tools.
- 2010** In 2010 Z-MaT established a precision parts manufacturing subsidiary, named Giessen to produce high speed and precision spindles.
- 2011** In 2011 the company established a global marketing strategy and began using the new Z-MaT logo. Rewarded as AAA credit rating company.
- 2015** In 2015 Z-MaT established a R&D center subsidiary in Taiwan, named GreaMaT, the 4-axis Turning Center TCS00 was designed in the same year in Taichang Taiwan.
- 2017** In 2017 Z-MaT established a second plant in Nanjing city, 3 times the area of our existing headquarter factory. Larger size machines, HMC and Gantry Milling has been made in the new plant. The production capacity has been increased extraordinarily.
- 2020** In 2020 Z-MaT has More Than 200 Models of CNC machines in the company product line. Z-MaT has exported CNC machines to over 80 countries, recognized as a pioneer and leader in supplying complete smart manufacturing solutions world-wide.

CNC Milling

Vertical Machining Center

- 06** High Speed F Series
High-speed ball bearings to increase productivity
- 07** Medium & Small Series
Conventional table & dual V post. VMC is better for production of parts
- 08** Large and Giant Series
Popular model, heavier design, 2-Mat work

12

Power V Series
Same size, higher rigidity!



Gantry Machining Center

- 14** 4 rails large size cylindrical roller
less preloaded under "U" bridge structure

Horizontal Machining Center

- 16** Compact
3-axis structure

Twin Spindle Machining Center

19

Same investment double
productivity.
A better design for the
large volume production
multi-tasking.



Tapping Center

- 20** Design for volume
parts with hole processing

Turning Center

Star Family Turning Centers

- 30** Star STL Series
Steel ball feedback, linear
guideway
- 32** Star SL Series
Steel ball, linear guideway,
compact design – without feedback
- 34** Star TN/TS Series
X, Z, C, D-axis turning
centers
- 35** Star DT Series
X, Z, C, Y, 4-axis turning
centers

Turn-Mill

- 38** CTX750
X, Y, Z, B, C, D-axis integrated
turn-mill center
- 40** TF01
Turning center transform into VMC
the "transformer"

Multi Turrets

Double Turret GT260V
Multiple turrets
multiply your production

44



Contents

Dual Spindle

TC500
Advanced 42 degree cross
T axis

46



- 47** STL/TN/DT-S Series
Handle maximum capacities
with ease
- 48** SA28-S
Single automation option you can
use – and price easily.
- 49** DA Series
Two programs machining,
a complete advanced automated
on one single machine.

Flash Family Turning Center

- 52** Flash SL Series
The beauty of speed and
accuracy
- 57** Flash FL Series
Center mounted ball screw
with heavy duty linear motion
guideway

Flash FTL Series
The world's first and
best design

61



Rigid Series Power A

- 65** 80" short bed, granite rigidity
and tool speed

Super Precision

- 69** High precision and
compact size

Hunter Family Turning Center

73 HUNTER FTH Series
Revolutionize the
NC/Conventional table



- 75** HUNTER 5TH Series
Cost-effective steel ball head
guideway, no balls from original
design of 5-Mat!
- 76** HUNTER 5H Series
Steel ball
head guideway
- 77** HUNTER FH Series
Flat bed,
head guideway
- 78** HUNTER 0K Series
Old design turn
from conventional table

Multi-Tasking Machine

- 81** Special structure turn-mill
center

Automation & Production Line

- 83** Machine
with robot

Vertical Lathe

- 87** Excellent option for large
heavy, thin-walled and
irregular disk parts

Tool Room CNC Machine

- 89** Innovation, heavy and
super with service
network

Special Purpose Machine

- 92** Increase Productivity-Beyond Expectations
Universal Cutting CNC lathe-200,
Big Head, Multi-Tool, Double End Milling,
Car Wheel Repairing, Steering Post



97 Professional Manufacturer Broad
Production Line

Service Network

- 101** The pursuit of the
fastest response to our promise

The Latest - MILLING & DRILLING TAPPING TECHNOLOGY

- Vertical Machining Center
- Gantry Machining Center
- Horizontal Machining Center
- Tapping Center

Steadfast In Our Faith

Recently, the VMC, Milling and Drilling and Tapping Centers are pushing VMC getting down to a cap to the bottom. The machine tool builders are finding conventional manufacturing ways getting better and lower in order to compete. Their margins are being cut because they cannot. The way they do it is to cut costs by using lower quality components, reducing horsepower, changing design, and designing lighter machines. Through the adjustment of the belts, the machines are getting better and better it's getting worse. CNC machine tool is a complex piece of equipment, designed with the service and after service for a long time spanning 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000, 1010, 1020, 1030, 1040, 1050, 1060, 1070, 1080, 1090, 1100, 1110, 1120, 1130, 1140, 1150, 1160, 1170, 1180, 1190, 1200, 1210, 1220, 1230, 1240, 1250, 1260, 1270, 1280, 1290, 1300, 1310, 1320, 1330, 1340, 1350, 1360, 1370, 1380, 1390, 1400, 1410, 1420, 1430, 1440, 1450, 1460, 1470, 1480, 1490, 1500, 1510, 1520, 1530, 1540, 1550, 1560, 1570, 1580, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, 1700, 1710, 1720, 1730, 1740, 1750, 1760, 1770, 1780, 1790, 1800, 1810, 1820, 1830, 1840, 1850, 1860, 1870, 1880, 1890, 1900, 1910, 1920, 1930, 1940, 1950, 1960, 1970, 1980, 1990, 2000, 2010, 2020, 2030, 2040, 2050, 2060, 2070, 2080, 2090, 2100, 2110, 2120, 2130, 2140, 2150, 2160, 2170, 2180, 2190, 2200, 2210, 2220, 2230, 2240, 2250, 2260, 2270, 2280, 2290, 2300, 2310, 2320, 2330, 2340, 2350, 2360, 2370, 2380, 2390, 2400, 2410, 2420, 2430, 2440, 2450, 2460, 2470, 2480, 2490, 2500, 2510, 2520, 2530, 2540, 2550, 2560, 2570, 2580, 2590, 2600, 2610, 2620, 2630, 2640, 2650, 2660, 2670, 2680, 2690, 2700, 2710, 2720, 2730, 2740, 2750, 2760, 2770, 2780, 2790, 2800, 2810, 2820, 2830, 2840, 2850, 2860, 2870, 2880, 2890, 2900, 2910, 2920, 2930, 2940, 2950, 2960, 2970, 2980, 2990, 3000, 3010, 3020, 3030, 3040, 3050, 3060, 3070, 3080, 3090, 3100, 3110, 3120, 3130, 3140, 3150, 3160, 3170, 3180, 3190, 3200, 3210, 3220, 3230, 3240, 3250, 3260, 3270, 3280, 3290, 3300, 3310, 3320, 3330, 3340, 3350, 3360, 3370, 3380, 3390, 3400, 3410, 3420, 3430, 3440, 3450, 3460, 3470, 3480, 3490, 3500, 3510, 3520, 3530, 3540, 3550, 3560, 3570, 3580, 3590, 3600, 3610, 3620, 3630, 3640, 3650, 3660, 3670, 3680, 3690, 3700, 3710, 3720, 3730, 3740, 3750, 3760, 3770, 3780, 3790, 3800, 3810, 3820, 3830, 3840, 3850, 3860, 3870, 3880, 3890, 3900, 3910, 3920, 3930, 3940, 3950, 3960, 3970, 3980, 3990, 4000, 4010, 4020, 4030, 4040, 4050, 4060, 4070, 4080, 4090, 4100, 4110, 4120, 4130, 4140, 4150, 4160, 4170, 4180, 4190, 4200, 4210, 4220, 4230, 4240, 4250, 4260, 4270, 4280, 4290, 4300, 4310, 4320, 4330, 4340, 4350, 4360, 4370, 4380, 4390, 4400, 4410, 4420, 4430, 4440, 4450, 4460, 4470, 4480, 4490, 4500, 4510, 4520, 4530, 4540, 4550, 4560, 4570, 4580, 4590, 4600, 4610, 4620, 4630, 4640, 4650, 4660, 4670, 4680, 4690, 4700, 4710, 4720, 4730, 4740, 4750, 4760, 4770, 4780, 4790, 4800, 4810, 4820, 4830, 4840, 4850, 4860, 4870, 4880, 4890, 4900, 4910, 4920, 4930, 4940, 4950, 4960, 4970, 4980, 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9970, 9980, 9990, 10000.

CONTROL SYSTEM Cutting edge and easier operation



Siemens 828D for CNC Milling

Extreme usability in the compact class
Based on CNC performance criteria, more complex machines with additional axes/spindles and 2 star tooling channels can be implemented.

Standard with 10.4 TFT Panels
The high-resolution 10.4" TFT SIMUMERK 828 color display is attractive as a result of their readability and user-friendliness. SIMUMERK Operate facilitates intuitive and efficient machine operation.

- Operator-friendly**
- 10.4" TFT color display in the 4:3 format
 - Full QWERTY keyboard with smart stroke keys
 - All operating screens can be quickly accessed using 18 softkeys
 - Simple data transfer using front interfaces with degree of protection IP65 (USB 2.0, LAN, Ethernet, CF card)
 - Power/fault/temperature sensor for smart display control (plugged and maintenance free)
 - Die-cast magnesium panel front with scratch-resistant glass
 - Operator's can wear work gloves
 - 64 MB RAM memory without requiring a buffer battery
 - No fan and hard disk
 - Simple commissioning via USB interface
 - Include update and feedback controller



Fanuc Oi MF Plus for CNC Milling

As a successor to the Series Oi-MF, the FANUC Series Oi-MF Plus has been released with renewed design, enhanced basic functions and the pursuit of ease of use. It is equipped with the latest control technology for fine surface machining and reducing cycle time, and with customizable functions that can flexibly create screens suitable for machine tools.

- 10.4" unit, the MDI unit with a new design, new color combination and hierarchical soft display
- A/C
- Fanuc Picture for second development
- High-Speed Right Tapping
- Helical interpolation
- Smart overcut
- Smart right tapping
- Dynamic graphics display function
- Multi-step skip
- Manual handle release
- Smart load meter
- G04 G08 Plus 48 Addressable Workpiece Coordinate Offset
- Milling G-code systems A-B-C
- Direct Drilling Dimension Programming
- Programmable Data Input
- 400 Tool Off sets Plus
- Tool Life Management
- High-Speed Skip for Probing



High-quality Machining Supported by High-performance Spindle

The machining centers are equipped with high-performance spindles with various speeds and sizes, whose design is optimized through structural analysis to increase rigidity of machining. The high durability and high speed of the spindle allow high quality machining.

● High-Capacity Spindle Unit

The advanced design of our spindles provides high axial-thrust capability, yet generates minimal heat. Several options of spindle heads and speed are available to fulfill various high speed machining requirements.

● High Efficiency Belt-drive Spindle

The high efficiency belt-drive spindle provides 8000 rpm spindle speed which depends on machining requirements. Spindle oil cooler system is optional item for all series to prevent thermal expansion effects and thermal deformation. The contact surfaces between headstock and spindle are all precisely hand scraped to ensure optimal performance and precision.

● High Speed, High Power Direct Drive Spindle

Direct drive spindle efficiently separates the heat generated from the motor, which reduces deformation, therefore increasing machining accuracy.

High-production Tool Changer With Super-fast Exchange Speed

Tool storage capacity 24/30/40/60 tools increases productivity and reduces setup times. A double-arm gripper swaps tools quickly to minimize non-cutting time. Locating the tool changer outside of the work envelope frees up additional workspace, keeps tools and tool pockets free of contamination, and adds greater flexibility when using large fixtures or rotary tables. With adjacent pockets empty, the tool changer will accept oversize tooling.



Carousel ATC



Disk Arm ATC

Fast and Reliable

- The high-performance magazine and ATC achieve quick tool change to minimize non-cutting time.
- The highly reliable magazine and ATC that cover a wide range of tools ensure solid tool changes and flexible machining.
- The ATC arm equipped with a holding lever for securing a tool tightly holds a long and heavy tool, offering reliable tool change.

Open Innovation for Maintaining Ideal Machining Quality

We offer a variety of high-performance peripheral equipment according to customer production requirements.
The combination of the VMC machine and high-performance peripheral equipment delivers high-precision machining and excellent durability.



4th and 5th axis auxiliary device interface

Users who wish to set up a rotary axis on the table to increase application flexibility are encouraged to contact sales representatives.

Chip conveyor

Reduced chip accumulation inside the machine and spindle yields less time removing chips.



Automatic measurement

Automatic tool setting and workpiece measurement offer easy operation and help simplify setup working time.



Coolant through spindle center

Coolant is supplied to the tip through the holes of the spindle and tool.



Spindle Oil Coolant

An oil cooler controlled to room temperature can be equipped for long-term operation at high speed.

Height raised

100-300mm



Raised column

When the distance between the table top and the spindle nose needs to be extended, for example, to accommodate a fixture or rotary axis on the table, the column can be raised.

HIGH SPEED F SERIES

Fast Motion Design

To increase your productivity, the Z-Mat F series vertical machining center is standard with a 40-inch fast traverse, a high-speed ATC, big pitch C3 ball screw, cylindrical roller linear guideway. The all-around design enhanced performance of the F series machines are popularly applied to SG, IT, semi space and military industry.

Standard Features

- Disk-type ATC
- Ergonomic CNC Panel & MPG
- Automatic Lubrication System
- Full Machine Enclosure
- Operator Door Safety Lock
- Air Conditioned Electrical Cabinet
- Handheld Air Gun

Optional Features

- CNC Controlled 4th Axis Rotary Table
- Different CNC Control System
- Spindle Center Coolant
- Chip Conveyor

Specifications

		Unit	F85	F105
Table	Table size	mm	1000×1000	1200×1000
	Max load	kg	800	800
	T-stroke (maximum extension)	mm	100±0.05	100±0.05
Travel	X Travel	mm	800	1000
	Y Travel	mm	800	900
	Z Travel	mm	500	500
Spindle	Spindle center to table	mm	575	580
	Spindle nose to table	mm	130-400	130-400
	Quickchange system		LAP (Product)	LAP (Product)
Feed & Magazine	Spindle speed	rpm	6000-13,000	12000-16000
	Spindle type		SK70	SK70
	Water-cooled motor	kw	7.5/11	7.5/11, 11/15
Dimension & Weight	ATC (2 axis rapid exchange)	ATC	40	40
	ATC capacity (piece)	No. / type	24/20#	24/20#
	Max. weight of tool	kg	9	9
Dimension & Weight	Power capacity	kVA	24	24
	Dimension	mm	2000×1500×2500	2000×2000×2600
Dimension & Weight	Weight (table on)	kg	4000	4000



MEDIUM & SMALL SERIES

Conventional Mill & Drill is past.
VMC is better for production of parts.

Standard Features

- Automatic Tool Changer
- Engimatic CNC Panel & MPG
- Automatic Lubrication System
- Full Machine Enclosure
- Operator Door Safety Lock
- Heat Exchanger
- Air Conditioned Electrical Cabinet (VMC320/VMC700E)
- Handheld Air Gun

Optional Features

- CNC Controlled 4th/5th Axis Rotary Table
- Different CNC Control System
- Higher Speed Spindle
- Spindle Center Coolant
- Chip Conveyor
- Air Conditioner (Except VMC320/VMC700E)



LARGE & GIANT SERIES

The High Performance Series machines feature heavier machine castings, big ballbearings and heavy duty linear guideways that provide superior surface finishes, excellent thermal stability, and quiet operation during heavy cutting.

Standard Features

- Slit-arm type ATC
- Engimatic CNC Panel & MPG
- Automatic Lubrication System
- Full Machine Enclosure
- Operator Door Safety Lock
- Air Conditioned Electrical Cabinet
- Handheld Air Gun

Optional Features

- CNC Controlled 4th/5th Axis Rotary Table
- Different CNC Control System
- Higher Speed Spindle
- Spindle Center Coolant
- Chip Conveyor



Specifications

	Unit	VMC320	VMC425E	VMC550E	VMC400	VMC600E	VMC300	VMC700E
Table	Table size	mm 900x300	720x300	900x300	900x300	900x300	1050x400	900x400
	T surface (max. reference)	mm 140x300	140x300	140x300	140x310	140x310	180x310	180x310
	Max. load	kg 200	200	200	200	200	300	400
Travel	X/Z Travel	mm 320/240/400	420/240/400	500/240/400	400/350/400	500/350/400	500/400/400	700/400/400
	Spindle nose to table	mm 30-500	50-500	30-500	30-500	30-500	30-540	30-540
	Spindle center to column	mm 300	300	300	400	400	400	400
	Guideway type	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ
Spindle	Spindle type	BT30	BT30	BT30	BT40	BT40	BT40	BT40
	Max. servo motor	kW 5.5/7.5	5.5/7.5	5.5/7.5	5.5/7.5	5.5/7.5	5.5/7.5 + 1/5/11	5.5/7.5 + 1/5/11
	Spindle speed	rpm 8000	8000	8000	8000-12000	8000-12000	8000-12000	8000-12000
Feed & Magazines	A/T Z-axis rapid traverse	m/min 28/28/28	28/28/28	28/28/28	28/28/28	28/28/28	28/28/28	28/28/28
	ATC capacity/type	No. type 12/Carousell	12/Carousell	12/Carousell	24/24x16/Carousell	24/24x16/Carousell	24/24x16/Carousell	24/24x16/Carousell
	Max. weight of tool	kg 3	3	3	6	6	6	6
Dimension & Weight	Power capacity	kVA 14	14	14	15	15	17	17
	Dimension	mm 2250x2050x2200	2250x2050x2200	2250x2050x2200	2350x2200x2200	2350x2200x2200	2350x2300x2400	2350x2300x2400
	Weight (net)	kg 2000	2000	2000	2000	2000	2000	2700

Note: *** means optional, "L.M." means linear motion guide way.

Specifications

	Unit	VMC840	VMC850	VMC1050E	VMC1200E	VMC1300E	VMC1375	VMC1580
Table	Table size	mm 1000x470	1000x520	1200x620	1400x520	1600x620	1600x750	1700x800
	T surface (max. reference)	mm 180x410	180x460	180x460	180x460	180x460	180x460	180x460
	Max. load	kg 700	800	1000	800	1000	1000	1500
Travel	X/Z Travel	mm 800/400/620	800/400/620	1000/400/620	1200/300/620	1300/300/600	1300/750/700	1500/800/700
	Spindle nose to table	mm 130-600	130-700	120-700	130-700	120-720	130-830	130-830
	Spindle center to column	mm 400	500	500	500	570	700	870
	Guideway type	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ	L.M.XYZ
Spindle	Spindle type	BT40	BT40/ BT50	BT40/ BT50	BT40/ BT50	BT40/ BT50	BT40/ BT50	BT50
	Max. servo motor	kW 7.5/11	11/15	15/15	15/15	15/15-15/18.8	15/15-15/18.8	15/18.8
	Spindle speed	rpm 8000-12000	8000-12000	8000-12000	8000-12000	8000-12000	8000-12000	8000-10000
Feed & Magazines	A/T Z-axis rapid traverse	m/min 30/30/30	30/30/30	30/30/30	30/30/30	30/30/30	34/24/30	30/30/15
	ATC capacity/type	No. type 24/24x	24/24x	24/24x	24/24x	24/24x	24/24x	24/24x
	Max. weight of tool	kg 6	6, 10	6, 10	6, 10	6, 10	6, 10	15
Dimension & Weight	Power capacity	kVA 21	21	21	21	21	21	30
	Dimension	mm 2400x2100x2300	2000x2200x2300	2000x2200x2300	2100x2200x2300	2000x2100x2400	2000x1800x2000	4000x2100x2100
	Weight (net)	kg 3000	2000	2000	2000	2000	1000	17000

Note: *** means optional, "L.M." means linear motion guide way.



SAME SIZE & HIGHER RIGIDITY

Machine is designed with large work area and big loading capacity. Combines high speed and high rigidity. High milling capacity and powerful drives make the machine super versatile. It can make a wide variety of workpieces for different industries.

- Optimal machine design ensures super rigidity of the machine.
- Heavy-duty roller-type linear guideways.
- Larger motor power.
- Wider guideway span.
- Heavier machine weight.
- Standard with BT40-150 type big spindle and BT50 spindle is available as an option.
- The casting bed and Y-shaped column design provide solid support to ensure ultimate dynamic accuracy.
- The contact surfaces of the column and bed are all hand-scraped to ensure precision assembly, strong structure and loading balance.

POWER V SERIES VERTICAL MACHINING CENTER

Rigidity Features 5-Combo!



Note: The picture is the frame of Power V10.



4x45°-Roller

Larger loading the higher rigidity roller LM

With 4 rows of rollers arranged at a contact angle of 45 degrees, the guideway has equal load ratings in the radial, reverse radial and lateral directions. The contact pressure of the rolling element is distributed on the line region, rollers have a greater contact area than balls, this provides the roller guideway with higher load capacity and longer running life. The figure shows the rigidity of a roller and a ball under equal volume.



6 units

More wide blades

X,Z axis linear guideway

X and Z axes both use 6 wide blade bearings to support spindle units and worktable.



1320mm

Wide span column structure provides optimal machining rigidity. The horizontal beams stability and accuracy even under high speed traveling.



45/55/45mm

Larger X,Z axis linear guideway

Rather than popular 50mm width LM as standard of this size VMC, we use 50mm and 45mm width size on Power V10. Moreover we select longer overall LM block length for greater contact load.



8200kg

Heavier weight of machine

Robust casting design is an essential feature for machining vibration. No matter how good other parameters look, it will affect the machining performance of hard material and heavy cutting, further impact on productivity, accuracy and running life.

POWER V SERIES

SAME SIZE
MORE POWER!

- Heavy duty LM guideway support bearing
- 1.8kg motor power
- LM34 guideway system
- Heavier machine weight
- ST 40/50 type big spindle with 8000RPM



Standard Features

- Disk arm type ATC
- Ergonomic DNC Panel & MPG
- Automatic Lubrication System
- Full Machine Enclosure
- Operator Door Safety Lock
- Air Conditioned Electrical Cabinet
- Handheld Air Gun

Optional Features

- CNC Controlled 4th/5th Axis Rotary Table
- Different CNC Control System
- Higher Speed Spindle
- Spindle Center Coolant
- Chip Conveyor



Specifications

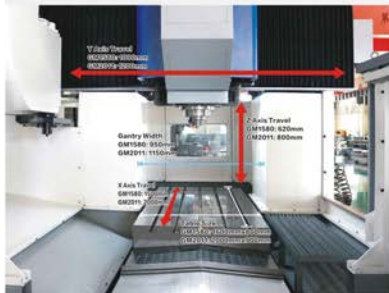
	Unit	Power V6	Power V10
Table	Table size	mm	1000*600
	Max load	kg	3000
	T (vertical/min. resistance)	mm	18~1*120
Travel	X Travel	mm	600
	Y Travel	mm	400
	Z Travel	mm	500
	Spindle center to table	mm	410
	Spindle nose to table	mm	130-600
Spindle	Spindle type	mm	150 (Barlet)
	Spindle speed	rpm	8000, *12000
	Spindle type	mm	BT40, BT50
Feed & Negative	Max. rapid motion	m/min	11/15, *15/18.5
	A/T/C speed (m/min)	m/min	30
	ATC capacity (mm)	No./Type	24/Quick Arm
Dimension & Weight	Max. weight of tool	kg	8
	Power capacity	kVA	21
	Dimension (mm)	mm	2000*2100*2300
	Weight (optional)	kg	3200~3200~3400
			8,000

Note: * means optional, *LM* means linear motion guide way.

GANTRY TYPE MACHINING CENTER

Product Map

Ideal envelope for medium and large-size parts machining. Gantry structure guarantees super rigidity and great machining capacity.



Ongoing Refinement

- GM2011 is designed with 4 rails large-size cylindrical roller Linear guideways under "U" brace Structure, this provides high rigidity and gains better stress flow which minimizes overhang and vibration.
- Rib reinforced working table restrains vibration while increasing machining stability.
- The Finite Element Method (FEM) analysis provides optimum machine design and light-weighted structure advantages while ensuring best machine rigidity.
- BT50 big spindle with powerful spindle servo motor, suitable for heavy cuts in low speeds and precision cuts in high speeds.

Standard Features

- BT50 8000rpm spindle
- Disk arm type ATC
- Ergonomic CNC Panel & MPG
- Automatic Lubrication System
- Full Machine Enclosure
- Air Conditioned Electrical Cabinet
- Handheld Air Gun

Optional Features

- CNC Controlled 4th Axis Rotary Table
- Different CNC Control System
- 6000rpm BT50 150 spindle



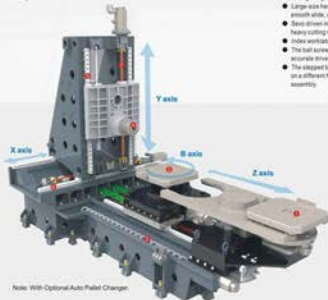
Specifications

		Unit	GM1580	GM2011
Table	Table size	mm	1600*800	2000*800
	Max Load	kg	2000	2500
	T-slots/width/mm (standard)	mm	22*4*120	22*4*120
Capacity	X Travel	mm	5000	5000
	Z Travel	mm	620	800
	Y Travel	mm	1000	1000
	Worktable width	mm	800	800
Spindle	Spindle speed	rpm	8000, 16000	6000, 16000
	Spindle type		BT50-150, BT50-150	BT50-150, BT50-150
	Max servo motor	kW	15/18.5	15/18.5
Feed	CNC servo rapid traverse	m/min	20	20
	Max. feedrate	m/min	10000	10000
ATC	ATC capacity/type	No. Type	24/24x-8mm	24/24x-8mm
	Max. weight of tool	kg	18	18
Others	Power capacity	kVA	40	40
	Dimension	mm	4650*2600*2000	5100*2600*2000
	Weight (standard)	kg	16000	18000

Note: "*" means optional, "LM" means linear motion guide way

HORIZONTAL MACHINING CENTER

Upright T-Base Structure – column is movable as X axis and worktable is moving as Z axis, this design matches the design concept of super precision boring machines. The worktable is carrying the workpiece to the static spindle while machining. It maximizes the spindle rigidity and accuracy.



Note: With Optional Auto Pallet Changer.

Cutting-edge Design

- The Finite Element Method (FEM) analysis provides optimum machine design and optimum structure advantages while ensuring the best machine rigidity. Mechanical standard Casting along with twice aging treatment for long-term reliability.
- BT50-190 large size spindle unit offers wide range machining capacity from low-speed heavy cutting to high-speed precision cutting applications.
- Large-size heavy-duty roller-type linear motion guideways applied on all 3-axis for rigid support, smooth slide, static accuracy as well as easier maintenance.
- Servo-driven index worktable B-axis and hydraulic locking guarantee the fast index speed and the heavy cutting rigidity.
- Index worktable uses curvic coupling for high-accuracy indexing.
- The ball screw brackets at both ends of the X-Y-Z axis ball screws are preloaded for highly accurate drive and positioning.
- The stepped base and column design of the MC-A Series, where two X-axis linear guide rails are on a different horizontal planes, increases the rigidity and stability of the spindle-head column assembly.

- 01 Optional Auto Pallets Changer (APC)
- 02 Index Work Table 60/90, 1 degree 30/Cor. NC-0.01°
- 03 Chip-Removal System
- 04 BT50-190 Heavy-Duty Spindle
- 05 Cylindrical Roller Linear Motion Guide-way
- 06 Stepped Base and Column Design
- 07 Large-Size Super Precision Ball screws

Standard Features

- BT50 Spindle
- Chain-arm Type ATC 60-Pcs
- Ergonomic CNC Panel & MPG
- Automatic Lubrication System
- Full Machine Enclosure
- Air Conditioned Electrical Cabinet
- Chip Conveyor

Optional Features

- Through Spindle Coolant
- Different CNC Control System
- Different Spindle
- Auto Pallet Changer



Specifications

	Unit	MC630H	MC800H	
Table	Table size	630x630	800x800	
	T-slot (Width, width-interval)	mm	3-121-120	3-121-120
	Max. load	kg	1000	2000
	Table quadrants	°	1, 16APC	1, 16APC
Travel	Table indexing degree	degree	1, 16.001°	1, 16.001°
	Max. indexing dia. of cylindrical	mm	650	1300
Spindle	ATC/2 Travel	mm	1100/600-1100	1300/1000-1300
	Spindle center to table	mm	60-800	40-1100
	Spindle end to table corner	mm	120-1220	100-1300
	Spindle type		BT50-190	BT50-190
Feed & Magazine	Main servo motor	kW	18.0/18	18.0/18, 22
	Spindle speed	rpm	6000	6000
	ATC/2 servo motor	rpm	2100/2100	2400/2400
	ATC capacity/type	No. type	40, 130/Chain type	40, 130/Chain type
Dimension & Weight	Max. weight of tool	kg	25	25
	Max. dia. of tool	mm	120/120	120/120
	Max. weight of tool	mm	600	600
	Power capacity	kVA	70	70
Dimension & Weight	Dimension	mm	6200x2700x2400	6600x4000x2400
	Weight (about)	kg	10000	20000

Note: 130° means optional APC, Auto Pallet Changer



TWIN-SPINDLE MACHINING CENTER

Great Advantages

High productivity and small footprint

By twin spindle design, one VMC can cut two workpieces simultaneously which increases the productivity by almost 200%, meanwhile the floor space occupied is the same as one traditional VMC.

Reduced investment and maintenance cost

The customer can reduce the base machine cost compared to two conventional VMC. Additionally, for ancillary items such as spindle probe, 4th axis rotary table, mist collector etc., only one is required, thereby reducing the total investment cost.

Low electricity consumption & low energy

Electricity consumption and operator walking distance are all reduced. This green and environmental protection design philosophy is one of the core structures of our brand promises.



Power WZ8 with Double Z axes

- One spindle or two spindle mode are to user's wish, which creates flexibility according to the volume size.
- It enables easy tool length offset adjustment for both spindles.
- It extends life time of spindle and toolbars.



Same Investment Double Efficiency

Power W6/8 with Single Z axis

Unlike the Power WZ8, Power W6 and W8 are designed with a single Z axis. The simpler structure reduces the user's investment, and the double spindle design offers as high productivity as the Double Z-Axis type-POWER WZ8.

The price, the electricity consumption, the floor space and the labor investment are similar to one Standard VMC, meanwhile the productivity will be almost doubled. No doubt, it will enhance user's competitive advantages tremendously. It can be a secret weapon for the large volume products manufacturer.

TWIN-SPINDLE VMC

Standard Features

- Dual arm type ATC 42
- Ergonomic CNC Panel & MPG
- Automatic Lubrication System
- Full Machine Enclosure
- Operator Door Safety Lock
- Air Conditioned Electrical Cabinet
- Air System with Handheld Air Gun

Optional Features

- CNC Controlled 8th Axis Rotary Table
- Different CNC Control System
- Higher Speed Spindle
- Spindle Center Coolant
- Chip Conveyor
- Spindle Oil Coolant
- Automatic Tool Setter
- Automatic Workpiece Measurement
- Water-Gun



POWER W60 VIDEO



POWER W60 VIDEO

Specifications

	Unit	Power W6	Power W8	Power W28
Table	Table size	mm	1200x600	1200x600
	T-slots(standard, maximum)	mm	18x5x120	18x5x120
	Max load	kg	500	600
Travel	X/Y/Z/RT Travel	mm	600/400/200	600/400/200
	Spindle nose to table	mm	150-600	150-700
	Spindle center to column	mm	400	500
	Distance between two spindles centers	mm	400	500
	Stability type	mm	LM (Ruler)	LM (Ruler)
Spindle(1, 2)	Spindle type		BT40-100	BT40-100
	Max spindle motor	HP	11.7 @ 110V/11	15.17 @ 110 & 115
	Spindle speed	rpm	6000 ~ 12000	6000 ~ 12000
Feed & Magazine	X/Y/Z axis rapid traverse	m/min	30/30/30	30/30/30
	ATC capacity type	Max Spindle	2x 24(Dual Arm)	2x24(Dual Arm)
	Max weight of tool	kg	0	0
Dimension & Weight	Power capacity	V/Hz	3/3	3/3
	Dimensions	mm	2200x2000x2100	2200x2000x2100
	Weight(standard)	kg	6500	6500

Note: "—" means optional, "LM" means linear motion guide way

HIGH SPEED TAPPING CENTER

Machine Characteristics

- 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.
- Direct drive spindle provides high efficiency, and low noise – assuring speed and torque during high-speed tapping operations.
- Gripper arm type tool magazine – for rapid tool changes and solid machining performance.
- Solid ball screw, bearing structure and high precision linear guideways supports rapid traverse and high speed machining. Also, assures proper orientation of machine during operation.
- Rear chip conveyor is compact and makes for easy chip removal. Chip flow is direct and easy.



Specifications

	Unit	Z540
Table size	mm	600x400
Max load of table	kg	200
X axis travel	mm	140/240/300
Y axis travel	mm	200
Z axis travel	mm	300
Spindle nose to table	mm	150-450
Spindle center to column	mm	300
X/Y/Z axis rapid traverse	m/min	40
Spindle type		BT30
Spindle driving method		Direct drive
Spindle speed	rpm	12000
Spindle motor power	kW	3.7/5.5
ATC type		Gripper Arm
ATC capacity		18, "D1"
Max weight of tool	kg	3
Tool change time	s	3
Dimension	mm	1800x2100x2000
Weight(standard)	kg	2800

ATC Tool Magazine
Gripper arm type magazine, fast tool changing

Main Spindle
Spindle speed is 12000rpm. Rapid feeding function is standard.

Machine Column
V-Shape column design, stable structure and good rigidity.

LM Guideway
Rigid & lead ready for Wearless, fast response and high precision accuracy.

Optimum Structure
Big span machine bed, stable structure and strong carrying capacity.



STAR FAMILY TURNING CENTERS

STAR STL/ SL/ TN/ TS/ DT SERIES

The STAR family of CNC lathes feature a cast mono-block, slant bed design and have configurable tooling options.

The SL Series lathes are typically equipped with a high-speed bi-directional indexing turret and a hydraulic chuck.

The STL series adds a tailstock to the lathe features.

The TN series are equipped with driven tool turret and C axis for secondary milling (drilling / tapping).

The TS series is designed without a tailstock for saving space and investment meanwhile it retains the same efficiency and capacity as the TN series. Furthermore, the TS500 can put a real powerful VMC spindle under the turret for rigid milling.

The DT series is standard with Y axis for off center milling together with sub spindle option. Complex workpieces can be finished in one time set-up.



BRILLIANT INNOVATION SOPHISTICATED TECHNOLOGY

Heavy-Duty Cast Iron Base – PLUS, Quality Components

Nearly all Star Family Lathes have a heavy-duty cast base with "true align" slant bed design. The machine bed, head stock, turret and tailstock are aligned on the same plane. This unique design feature reduces heat build-up and resulting thermal expansion. The net result is a higher precision machine tool.

Additional resulting efficiencies from the "true align" design are greater rigidity and smoother operation – which provides a variety of benefits. You can expect to produce highly accurate parts with extremely fine surface finishes.

There are multiple benefits to having a lathe that combines such a large sized "vibration damping" solid, cast base – PLUS, properly aligned and balanced components. Some of these benefits include: 1) Smoother slide surface operation 2) Higher speed and accuracy 3) Fewer machine adjustments and lower maintenance costs 4) Shortened machine warm-up time, and 5) Lower power consumption.

The Foundation for Success



Turret Features

Bi-directional indexing high speed 8/12 station tools type or 12 stations driven tools type turret provides optimal tool change efficiency and speed. VDI and BMT standard are available in this series.



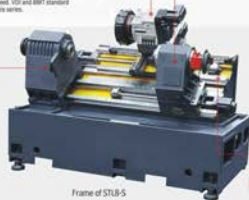
Sub-spindle & Automatic Tailstock

This efficient tailstock provides a combination of rigidity, accuracy and rapid set-up times on sub-spindle or large automatic lathe solutions. 2-Mat smartly designed an economic automatic tailstock. The tail stock body is perforated by a hydraulic traction bar on LM guideways.



Rigid Headstock and Spindle

Different types and size spindles are available on one model which adds extreme flexibility and optimized machining performance according to the target workpieces of customer.



Frame of STL8-S

90% reduction in set-up time, compared to manual tailstock lathes.

Cylindrical Roller Linear Motion Guideway

Base and bed are **One-piece square casting** monoblock design



SPINDLE & TURRET FEATURES

Combined Speed and Rigidity

Different size direct mount spindles, cartridge type spindles and built-in motor spindles are standard according to exact models. With modular design production, each model has various spindle options to create the perfect balance of speed and rigidity.

The headstock and main spindle are manufactured then assembled and tested in a clean room. Heavy duty type spindle is supported by a double-row tapered cylindrical roller bearing plus angular ball bearing and double-row cylindrical roller bearing in the rear. It is a perfect marriage of speed and rigidity.

Built-in Motor Spindle



Cartridge Type Spindle



Direct Mount Spindle



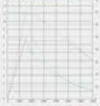
SPINDLE MOTOR TORQUE DIAGRAM

Max. Torque
Continuous Torque @ 100%
Max. Torque
Continuous Power @ 100%

STAR STL6



STAR STL6 / STL6-II



STAR STL10 / STL12



STAR STL15



Note: The max spindle output torque are measured by actual ball cutting rate, please contact sales representative to get more technical details.

C Axis Motion

PMGM (permanent magnet synchronous motor) type Direct Drive Spindle provides high-precision C axis motion that is fully synchronized with X and Z Motion.

Direct Driven Spindle

Electrical spindle (Built-in motor) offers higher torque, better overload capability and high speed acceleration which shortens cycle time and increases productivity better than a traditional belt driven spindle. The machine is running with less vibration and less noise, together with better accuracy. It represents a new generation of turning center.

Overload protection and oil coolant are standard features to guarantee long term stability.

■ Belt driven Spindle
■ Direct Driven Spindle

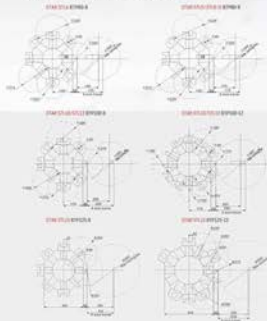


VARIOUS HIGH CLASS TURRET

Increase efficiency and reliability

3-station turret is standard on 2 axis cnc lathes. 12-station driven tool turret is standard for 3 and 4 axis turning centers. High quality, high speed bi-directional indexing turret provides optimal tool change efficiency and speed.

Tool Interference Diagram



Tooling System

STAR STL6/STL6-II/STL10/STL12/STL15



Hydraulic



Servo

	Adjacent tool change and tool size	Opposite tool change and tool size
SP Center height - 63	0.6s	2s
SP 17x3	0.4s	1.4s
SP Center height - 80	0.6s	2s
SP 20x5	0.4s	1.4s
■ Servo Hydraulic Turret	■ 2-STEP INDEXED Standard Turret	

DRIVEN TOOL POWER TURRET FEATURES

Powerful Driven Tool Turret

Standard with 12-velocity driven tool turret, it features 4-directional indexing and easy-lifting. The high quality, high speed power turret provides optimal tool change efficiency and speed.

Rugged construction of internal elements ensures smooth transmission of high torque and speed. Only the tool in position gets drive. Motorized Cam operated mechanism ensures positive engage and disengage movements of the clutch for the driven tool. All drive elements are grease lubricated and properly sealed to prevent coolant entry.

BMT Standard

The BMT "Base Mounted Turret" holder will mount securely to the face of the turret with 4 socket head cap screws, and is located and further secured with locating keys present on the turret face. These keys eliminate the need for indicating the toolholder to straighten it. Operator does not need to adjust the straightness for BMT toolholder, overall precision is based on the precision of the toolholder, and which is not adjustable.



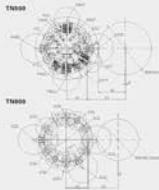
BMT AND VDI TECHNOLOGY

VDI Technology

The VDI system is a quick change clamping system for each tool holder within the tool disc. Tool changes can therefore be performed within seconds, rather than minutes as with the traditional Block Bolt on system.



Tool Interference Diagram



MODULAR TURRETS	<ul style="list-style-type: none"> • ATW-30E P25-40 • ATW-40E P25-40 • Configured size is option 	<ul style="list-style-type: none"> • P25 • P32
	<ul style="list-style-type: none"> • BTW-30E P25-40 • BTW-40E P25-40 • Compact size is option 	<ul style="list-style-type: none"> • P25 • P32
	<ul style="list-style-type: none"> • BT (30 25-40) • BT (40 25-44) • BT is extra length design 	<ul style="list-style-type: none"> • P25 • P32
	<ul style="list-style-type: none"> • CT (30 25) • CT (40 25) 	<ul style="list-style-type: none"> • P25 • P32
	<ul style="list-style-type: none"> • C23 301 • C23 441 	<ul style="list-style-type: none"> • P25 • P32
	<ul style="list-style-type: none"> • C23 44 01 • C23 44 02 • Other sizes option 	<ul style="list-style-type: none"> • P32 • P32
	<ul style="list-style-type: none"> • C23 44 03 • C23 44 04 • Other sizes option 	<ul style="list-style-type: none"> • P32 • P32
	<ul style="list-style-type: none"> • C23 44 05 • C23 44 06 • C23 44 07 • C23 44 08 • C23 44 09 • C23 44 10 • C23 44 11 • C23 44 12 • C23 44 13 • C23 44 14 • C23 44 15 • C23 44 16 • C23 44 17 • C23 44 18 • C23 44 19 • C23 44 20 • C23 44 21 • C23 44 22 • C23 44 23 • C23 44 24 • C23 44 25 • C23 44 26 • C23 44 27 • C23 44 28 • C23 44 29 • C23 44 30 • C23 44 31 • C23 44 32 • C23 44 33 • C23 44 34 • C23 44 35 • C23 44 36 • C23 44 37 • C23 44 38 • C23 44 39 • C23 44 40 • C23 44 41 • C23 44 42 • C23 44 43 • C23 44 44 • C23 44 45 • C23 44 46 • C23 44 47 • C23 44 48 • C23 44 49 • C23 44 50 • C23 44 51 • C23 44 52 • C23 44 53 • C23 44 54 • C23 44 55 • C23 44 56 • C23 44 57 • C23 44 58 • C23 44 59 • C23 44 60 • C23 44 61 • C23 44 62 • C23 44 63 • C23 44 64 • C23 44 65 • C23 44 66 • C23 44 67 • C23 44 68 • C23 44 69 • C23 44 70 • C23 44 71 • C23 44 72 • C23 44 73 • C23 44 74 • C23 44 75 • C23 44 76 • C23 44 77 • C23 44 78 • C23 44 79 • C23 44 80 • C23 44 81 • C23 44 82 • C23 44 83 • C23 44 84 • C23 44 85 • C23 44 86 • C23 44 87 • C23 44 88 • C23 44 89 • C23 44 90 • C23 44 91 • C23 44 92 • C23 44 93 • C23 44 94 • C23 44 95 • C23 44 96 • C23 44 97 • C23 44 98 • C23 44 99 • C23 44 100 	<ul style="list-style-type: none"> • P25 • P32
	<ul style="list-style-type: none"> • C23 44 101 • C23 44 102 	<ul style="list-style-type: none"> • P25 • P32
	<ul style="list-style-type: none"> • C23 44 103 • C23 44 104 	<ul style="list-style-type: none"> • P25 • P32
<ul style="list-style-type: none"> • C23 44 105 • C23 44 106 	<ul style="list-style-type: none"> • P25 • P32 	



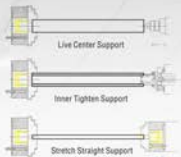
Note:

- The codes in [e.g. C1 (30 25)] is purchasing codes. Written in Blue color is for VDI30, written in red color is for VDI38.
- * Mark means that the tool holders offer used for general workshop, not recommended customer to buy together with machine.
- Mark means that the tool holders occasionally used for some workshop.
- IV * mark means that option size is available, please contact our sales representative for details.
- ∨ There are more different VDI standard toolholders, you may get from your nearest local market or contact Z-Mu's sales rep. for further details.



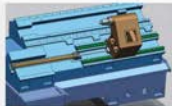
VARIOUS TAILSTOCK FEATURES

Typical Application Diagram of Spindle Type & Servo Programmable Tailstock



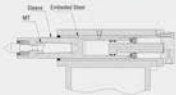
Small Spindle Type Tailstock

The tailstock is designed similar to the sub-spindle structure. It offers great rigidity, accuracy and wide capability. Live center lubrication is not necessary on such a structure.



Hydraulic Programmable Tailstock

The complete tailstock body is driven by a hydraulic traction bar on cylindrical roller linear motion guide way. With no sleeve design and lower motion guide way, it ultimately increases the accuracy as well as being free of lubrication and maintenance. It has the same full automatic travel feature as the servo programmable tailstock. Set up time is saved and efficiency is increased by such a design.



Embedded Steel Tailstock

Unlike traditional tailstock, Z-40x1 uniquely created an embedded steel type tailstock. The design extremely reduces wear and increases accuracy.

VARIOUS SUPERB ACCESSORIES



2/3 Jaws Chuck



DIN Standard Collet



Hollow Hydraulic Cylinder



Solid Hydraulic Cylinder



Bar Feeder



Oil Mist Collector



Tool Setter



Steady Rest

STAR STL SERIES

Slant bed, Tailstock, Linear
Guideway

Standard Features

- Hydraulic 3 jaw Chuck
- 8 Station Turret
- Automatic Lubrication System
- Automatic Coolant System
- Hydraulic Tailstock
- 3 Color Indicator Lamp
- Work Lamp
- Full Forward Guard
- Hydraulic System
- Head Exchanger Of Electric Cabinet

Optional Features

- 12 Station Turret
- Different Checks And Coflets
- Automatic Tailstock
- Chip Conveyor
- Tool Setter
- Bar Feeder
- Oil Mist Collector
- Air Conditioner Of Electric Cabinet
- Steady Rest



Specifications

Unit	STL8	STL8-II	STL8 Plus	STL8-750	STL8-1100
Capacity					
Chuck size	inch 8" 140"	inch 8" 140"	inch 8" 140"	inch 8" 140"	inch 8" 140"
Max. swing dia. over bed	mm Ø400	mm Ø400	mm Ø400	mm Ø400	mm Ø400
Max. length of workpiece	mm 450	mm 500	mm 600, 700	mm 700	mm 1100, 1150
Max. swing dia. over slide	mm Ø220	mm Ø220	mm Ø220	mm Ø200	mm Ø200
Spindle					
Spindle bore	mm Ø62	mm Ø62	mm Ø75	mm Ø62	mm Ø62
Max. dia. of through-hole	mm Ø62	mm Ø62	mm Ø75	mm Ø62	mm Ø62
Spindle nose	inch A2.4	inch A2.4	inch A2.4	inch A2.4	inch A2.4
Spindle taper	inch 4000	inch 4000	inch 4000	inch 4000	inch 4000
Spindle speed	rpm 12000	rpm 12000	rpm 12000	rpm 12000	rpm 12000
Max. motor power	kW 7.5/11.1/15.0	7.5/11.1/15.0	7.5/11.1/15.0	7.5/11.1/15.0	7.5/11.1/15.0
Axis					
Z axis travel	mm 175	mm 175	mm 200	mm 200	mm 200
X axis travel	mm 200	mm 200	mm 200, 300	mm 200	mm 300, 1100
R/Z rapid traverse	mm/min 20/20	mm/min 20/20	mm/min 20/20	mm/min 20/20	mm/min 20/20
Turret					
Center height	mm 80	mm 80	mm 100	mm 100	mm 100
No. of tool stations	mm 8, 12	mm 8, 12	mm 8, 12	mm 8, 12	mm 8, 12
Tool change time	mm 25/25, 35/25	mm 25/25, 35/25	mm 25/25	mm 25/25	mm 25/25
Tailstock					
Type of tailstock	Hydraulic, SST, MPT	MPT, Hydraulic, SST	Hydraulic, MPT, SST	SST, MPT	SST, MPT
Type of tailstock quill	M75	M75	M75	M75	M75
Travel of tailstock quill	mm 60	mm 60	mm 60	mm 60	mm 60
Travel of tailstock	mm 100-400	mm 100-500	mm 100-400, 500	mm 100, 700	mm 100-1100, 1100
Structure					
Slant bed degree	30°	30°	30°	30°	30°
Guideway type	LM	LM	LM	LM	LM
Others					
Power capacity	kVA 18	18	18	18	18
Overall dimension L*W*H	mm 2000*2000*2200	mm 2000*2000*2100	mm 2000*2000*2100	mm 2000*2000*2100	mm 2000*2200*2200
Weight (approx)	kg 4700	kg 5000	kg 5000	kg 5000	kg 5000

Note: "—" means optional. "LM" means linear motion guideway. Tailstock: "Hydraulic" means automatic hydraulic driven tailstock without. "MPT" means linear motion guide way. Automatic hydraulic driven body drive tailstock. "SST" means small spindle hydraulic tailstock. "MPT" means small programmable tailstock. "SST" means small spindle hydraulic tailstock. "MPT" means small programmable tailstock. "C.C." Spindle Center V-tailstock Center Outdrip.



Specifications

Unit	STL6	STL10	STL12	STL12-2000	STL15	STL18
Capacity						
Chuck size	inch 6" 7"	inch 10"	inch 12" 140"	inch 12" 140" 140"	inch 12" 140" 140"	inch 12" 140"
Max. swing dia. over bed	mm Ø300	mm Ø300	mm Ø300	mm Ø300	mm Ø300	mm Ø300
Max. length of workpiece	mm 300, 350	mm 700, 750, 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350	mm 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350	mm 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350	mm 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350	mm 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350
Max. swing dia. over slide	mm Ø120	mm Ø120	mm Ø120	mm Ø120	mm Ø120	mm Ø120
Spindle						
Spindle bore	mm Ø50	mm Ø50	mm Ø50	mm Ø50	mm Ø50	mm Ø50
Max. dia. of through-hole	mm Ø50	mm Ø50	mm Ø50	mm Ø50	mm Ø50	mm Ø50
Spindle nose	inch A2.4	inch A2.4	inch A2.4	inch A2.4	inch A2.4	inch A2.4
Spindle taper	inch 4000	inch 4000	inch 4000	inch 4000	inch 4000	inch 4000
Spindle speed	rpm 4500	rpm 4500	rpm 4500	rpm 4500	rpm 4500	rpm 4500
Max. motor power	kW 7.5/11	11/15, 15/18.2	11/15, 15/18.2	11/15, 15/18.2	11/15, 15/18.2	11/15, 15/18.2
Axis						
Z axis travel	mm 150	mm 200	mm 200	mm 200	mm 200	mm 200
X axis travel	mm 200, 300	mm 700, 1000, 1100	mm 700, 1000, 1100	mm 700, 1000, 1100	mm 700, 1000, 1100	mm 700, 1000, 1100
R/Z rapid traverse	mm/min 20/20	mm/min 20/20	mm/min 20/20	mm/min 20/20	mm/min 20/20	mm/min 20/20
Turret						
Center height	mm 80	mm 100	mm 100	mm 100	mm 100	mm 100
No. of tool stations	mm 8, 12	mm 8, 12	mm 8, 12	mm 8, 12	mm 8, 12	mm 8, 12
Tool change time	mm 25/25, 35/25	mm 25/25	mm 25/25	mm 25/25	mm 25/25	mm 25/25
Tailstock						
Type of tailstock	Hydraulic, MPT	Hydraulic, MPT, SST	Hydraulic, MPT, SST	Hydraulic, MPT, SST	SST, MPT	SST, MPT
Type of tailstock quill	M75	M75	M75	M75	M75	M75
Travel of tailstock quill	mm 60	mm 60	mm 60	mm 60	mm 60	mm 60
Travel of tailstock	mm 80-300	mm 100-700, 1000, 1100	mm 100-700, 1000, 1100	mm 100-700, 1000, 1100	mm 100-1100	mm 100-700
Structure						
Slant bed degree	30° 140"	30°	30°	30°	30°	30°
Guideway type	LM	LM	LM	LM	LM	LM
Others						
Power capacity	kVA 14	18	18	18	18	18
Overall dimension L*W*H	mm 2000*1200*1700	mm 2000*2000*2100	mm 2000*2000*2100	mm 2000*2000*2100	mm 2000*2200*2100	mm 2000*2200*2100
Weight (approx)	kg 3000	kg 5000	kg 5000	kg 5000	kg 5000	kg 5000

Note: "—" means optional. "LM" means linear motion guideway. Tailstock: "Hydraulic" means automatic hydraulic driven tailstock without. "MPT" means linear motion guide way. Automatic hydraulic driven body drive tailstock. "SST" means small spindle hydraulic tailstock. "MPT" means small programmable tailstock. "C.C." Spindle Center V-tailstock Center Outdrip.

STAR SL SERIES

Slant bed, Linear Guideway

Standard Features

- Hydraulic 3-jaw Chuck
- 8-Station Turret
- Automatic Lubrication System
- Automatic Coolant System
- 3 Color Indicator Lamp
- Work Lamp
- Fully Enclosed Guard
- Hydraulic System
- Heat Exchanger Of Electric Cabinet

Optional Features

- 13-Station Turret
- Different Chucks And Collars
- Chip Conveyor
- Tool Setter
- Bar Feeder
- Oil Mist Collector
- Air Conditioner Of Electric Cabinet
- Ultra Long Tool Holder (SL8, SL10E)



Compact Design – Without Tailstock

For disc and short parts, SL has the Same Performance as the STL
– At a Lower Price Point, Perfect for Automation Options

- Cast Stone-Block, "True Align" Slant Bed Structure
- Adjustable "Ergonomic" Operator Control Panel
- Servo Spindle Motor – High Speed with Low Speed Constant Torque
- Handheld Electronic Hand Wheel
- Highly Efficient Turret – Indexing, Bi-Directional, Non-Cutting
- Schneider Superior Quality Electrical Components
- Cylindrical Roller LM and Cylindrical Roller Spindle Bearings are standard for big models and also available for small model as an option to increase rigidity
- Star SL8 and SL10E are designed with extra gang static or live tool holder options under the turret.



Specifications

	Unit	SL6	SL8	SL10E	SL10	SL12
Capacity	Chuck size	inch	6" / 10" / 12"	8"	8" / 10"	10" / 12"
	Max. turning dia. over bed	mm	150	200	250	300
	Max. length of workpiece	mm	250 / 300	300	350 / 400	400 / 450
Spindle	Max. turning dia. over slide	mm	150	200	250	300
	Spindle bore	mm	80	100	125	150
	Max. dia. of through hole	mm	80	100	125	150
	Hydraulic motor	type	A2-E	A2-E	A2-E	A2-E
Axis	Spindle speed	rpm	450 / 1200 / 1800	450 / 1200 / 1800	450 / 1200 / 1800	450 / 1200 / 1800
	Max. motor power	kW	5.5 / 7.5	7.5 / 11	11 / 15	15 / 18
Turret	3 axis travel	mm	200	250	300	350
	2 axis travel	mm	250 / 300	300	350 / 400	400 / 450
	A-Z travel clearance	mm	200	250	300	350
Structure	No. of tool stations	mm	8 / 12	8 / 12	8 / 12	8 / 12
	Tool change time	mm	20/25 / 25/30	25/30 / 30/35	30/35 / 35/40	35/40 / 40/45
Others	Slant bed degree	mm	35°	35°	35°	35°
	Guideway type	mm	LM	LM	LM	LM
	Power capacity	kVA	12	15	18	18
Weight	Overall dimension (LxWxH)	mm	2120x1700x1900	2250x1800x1910	2520x1750x2000	2600x1750x2100
	Weight (net/total)	kg	2300	3000	4000	4600

Note: " / " means optional, "LM" means linear motor guideway

STAR TN & TS SERIES

FULL RANGE OF X,Z,C 3-AXIS TURNING CENTERS

Turning Center
Turning Center For Short Parts

Standard Features

- Hydraulic 3-jaw Chuck
- 12 station Power Turret
- Automatic Lubrication System
- Automatic Coolant System
- Tailstock (TS Series)
- Work and Search Light

Optional Features

- Tool Center
- Chip Conveyor
- Live Tool Holders
- Different Chucks And Cones
- Different CNC Systems
- Bar Feeder
- Steady Rest
- Stalls or Live Tools under Turret (TS400, TS500)

TS Feature a Compact Design
– Without Tailstock

TS has the Same Performance as
TN – At a Lower Price Point



Machine Characteristics

TN and TS are turning centers able to flexibly handle various workpieces. The models feature Ball-Driven or Direct Driven Spindle (Built-in Motor) that achieves high speed with great rigidity, and outstanding C axis accuracy. 12-station Power turret enables operators to perform machining of workpieces from simple to complex shaped components with one set up operation.

TS are models without a tailstock for a more compact and economic design to satisfy short or disc type workpiece.

The models can satisfy a wide range of users from beginners of shop production to group cooperation with experienced technicians.



Specifications

	UNIT	TN500	TN500-650	TN600	TN700	TS400	TS500	TS600
Capacity	Chuck size	inch 6	6	10-1/2	10	8	8	10
	Max. length of workpiece	inch 270, *500	660, *1000, *1600	700, *900, *1300	1200	820	820	820
	Max. swing dia. over bed	inch 6000	6000	6000	6000	6000	6000	6000
	Max. swing dia. over slide	inch 6200	6400	6200	6000	6200	6200	6400
Spindle	Spindle bore	inch 600	600	600	6100	600	600	600
	Max. dia. of through hole	inch 650	650	675	691	646	650	675
	Spindle nose	inch A2-6	A2-6	A2-6	A2-6	A2-6	A2-6	A2-6
	Max. spindle speed	rpm 4000	4000	3000	1800	3000	4000	3000
Max. motor power	kW 22/30	22/30	27/45	Ball 20/18.6		11/15	22/30	40/57
Axis	Z axis travel	inch 260	230	280	280	280	280	280
	Z axis travel	inch 460, *560	660, *1000	700, *1000, *1600	1300	500	500	400
	X, Y axis travel	mm 20/20	20/20	20/20	15/20	20/20	20/20	20/20
Turret	No. of tool stations	12	12	12	12	12	12	12
	Tool change time	VDI30, *SM740	SM740	SM740, *VD40	SM740	VDI30, *SM740	VDI30, *SM740	VDI30, *SM740
	Max. speed of driving tool	inch 4000, *5000	4000, *5000	4000, *5000	4000, *5000	4000, *5000	4000, *5000	4000, *5000
Tailstock	Type of tailstock	--	Hydraulic, *SP1	ST, *SP1	Hydraulic, *SP1, *SP1	ST-LM, *SP1	--	--
	Type of tailstock quill	--	M74	M75	M75	M75	--	--
	Type of tailstock	--	100-600	100-650, *1000	100, 700, *1000	100-1200	--	--
Others	Power capacity	kVA 30	30	40	40	20	20	40
	Overall dimensions (HxWxD)	inch 1000x1700x1600	1000x1600x1300	1000x1600x2100	1000x2170x1600	1000x1600x1600	1000x1700x1600	1700x1700x1600
	Weight (Metric)	kg 4000	3200	3600	5400	3000	4000	4800

Note: *11" means optional. *LM means linear motion guidance. Tailstock: *Hydraulic" means automatic hydraulic driven tailstock system. *SP1" means linear motion guide way, automatic hydraulic drive body type tailstock. *ST" means steel spindle hydraulic tailstock. *SP1" means ceramic programmable tailstock.

STAR DT SERIES

Dual Processes
Turning Center
With Y Axis

Standard Features

- Hydraulic 3-Jaw Chuck
- 12 station 80°T Power Turret
- Y axis
- Hydraulic Tailstock
- Work Light
- Tri-Color Alarm Light
- Automatic Lubrication System
- Automatic Coolant System

Optional Features

- Different Chucks and Collets
- Different CNC Control Systems
- Different Spindle Bore Diameters
- Chip Conveyor
- Tool Setter
- Bar Feeder



FULL RANGE OF X.Z.C.Y. 4-AXIS TURNING CENTERS



Machine Characteristics

2-Mat DT series turning centers provide ODS spindle or Ball spindle units, Driven tool turret and Y axis features. This Series extremely extends machining capability for combining turning and off center milling. With Y axis, customers can replace more than 80% secondary machining process by milling machine for turned parts. It will save the labor time, increase accuracy and efficiency. Thanks for mass production, 2-Mat work hard to make every customer own an excellent turning center at an affordable price. You don't need 1 CNC lathe and 1 milling/drilling/tapping machine any more. In most instances, one unit of DT series turning center solves all your problems in one setup.



Specifications

	Unit	DT400E	DT500E	DT500
Capacity	Max. turning diameter	mm 160	200	200
	Max. length of workpiece	mm 320	400, 1100, 1160	400
	Max. swing dia. over bed	mm 300	300	300
	Max. swing dia. over slide	mm 300	430	300
Spindle	Hydraulic Chuck	inch 6	6	6
	Dia. of spindle bore	mm 60	80	80
	Max. dia. of through hole	mm 60	80	80
	Spindle nose	mm A2-B	A2-B	A2-B
Structure	Max. spindle speed	rpm 6000	6000	6000
	Max. motor	kw 11.15	22.30	22.30
	Bed bed degree	degree 30°	30°	30°
	Overhang type	mm 130	130	130
Axis	Z axis travel	mm 300	300	300
	X axis travel	mm 300	400, 1100, 1160	400
	Y axis travel	mm 10 (x10)	100 (x10), 140 (x10)	100 (x10)
	UVI air seal clearance	mm 20 (x12)	20 (x12)	20 (x12)
Turret	Type of turret	mm 80/70	80/70, 90/70	80/70
	No. of tool	mm 12	12	12
	CD tool change tool	mm 10-10	20-20, 20-20	20-20
	Rotary tool change tool	mm 200	200	200
Tailstock	Type of tailstock	mm Hydraulic	SPT, SGT	SPT
	Type of tailstock axis	mm 10/14	MT16mmx40 taper	MT14
	Type of tailstock	mm 100	100	100
Others	Height (mm)	mm 2000	2000	2000
	Overall dimension (mm)	mm 2700 (x1000) (x2000)	3000 (x1000) (x3000)	3000 (x1000) (x3000)

Note: "11" means optional. "LP" means linear motion guideway. Tailstock "Hydraulic" means automatic hydraulic driven tailstock drive. "SPT" means linear motion guide way, automatic hydraulic driven tool turret tailstock. "SGT" means small spindle hydraulic drive. "100" means without programmable tailstock. "2700x1000" is special customer design for the small workpiece standard with programmable steady rest and servo programmable tailstock.

TURN-MILL CTX 750

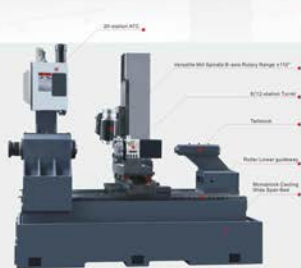
X,Y,Z,B,C, 5-AXIS INTEGRATED TURN-MILL CENTER

Complete Machining
Turning Center
X Swing Milling Spindle B-axis



Machine Characteristics

Super rigid bed with up to 850mm, combined with a versatile BT30 mill spindle, 20-station KTC and B-station turret, CTX is designed to provide maximum value, an option for increasing processing flexibility while offering a cost-effective alternative for those seeking accurate turning and angular milling capability. In addition to automatic tool changing, and convenient operation – the CTX fills the demand for a robust, multi-tasking machine to deliver on a wide variety of production requirements.



Specifications

	Unit	CTX750
Capacity	Max. swing dia. over bed	mm 8100
	Max. swing dia. over table	mm 4300
	Max. turning diameter	mm 4100
	Max. length of workpiece	mm 700
Axis	X axis travel	mm 300
	Z axis travel	mm 900
	Y axis travel	mm 300
	X axis rapid traverse	mm/min 15000
	Y axis rapid traverse	mm/min 15000
Mill Spindle	Z axis rapid traverse	mm/min 15000
	B axis rotation range	° ±110°
	Mill spindle speed	rpm 6000
	Mill spindle torque	Nm 18
	B axis rotating speed	° / s 0-90° / s
	Mill spindle type	BT30
	Mill KTC station	mm 20
Spindle	Main spindle style	A2-B, A2-B
	Dia. of spindle bore	mm 86.2, *87.6
	Dia. of bar capacity	mm 86.2, *88.6
	Max. spindle speed	rpm 4000, *2000
Turret & Tailstock	Main motor	V30 7.5/11
	Hydraulic chuck size	mm 8
	Stations of turret	mm 8, *12
Others	Type of tailstock split	type M75
	Travel of tailstock split	mm 100
Others	Overall dimension (L*W*H)	mm 2265x1900x1490
	Weight (net/mt)	kg 9300

Note: * ** means optional

DUAL-USE TECHNOLOGY SERIES TF01

Turning Center
Transform into VMC
Like "Transformer"

Standard Features

- Maho® Z-Jaw Chuck
- PMS/ HSD/IN Linear Guideway
- PMS/ HSD/IN Ballcreek
- B-Station Turret
- BT30 Spindle (up to 8000rpm)
- Drum Type ATC B-Station
- Manual Toollock

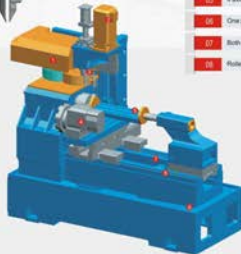
Optional Features

- Hydraulic Chuck
- Chip Conveyor
- Quick Bridge Plate for 4th axis VMC Function
- Hydraulic Toollock



Transformer Turn-mill

- Ideal machine created by 2-MAT cutting-edge technology serving for mass production complex turned workpieces with secondary milling tapping or drilling processes.
- Creative design for a wide range of different workpieces
- Toolroom CNC, extended capability and reduced investment and working space at reduction.



- 01 Automatic tool change magazine
- 02 Milling spindle motor
- 03 BT30 high-rigid spindle
- 04 8/12-station turret in the front
- 05 4 axis rotary table function
- 06 One piece monoblock casting
- 07 Both ends anchored ballcreek
- 08 Roller type 45mm linear guideway

CNC Turning Center With Y Axis VMC With 4th Axis Integrated in One

This machine is designed based on wide span lathe bed, monoblock one-piece casting and large-sized linear motion guideway which guarantee the solid foundation for balanced two purpose-turning and milling.

Its basic function is a powerful turning center. However, it can become a 4th axis VMC as long as we add a bridge plate between the 3-Jaw Chuck and Tailstock (Then C axis convert to "A" Axis function in VMC mode). The milling, drilling and tapping processes can be realized through automatic tool change and BT30 high speed VMC spindle.

Basically, this machine can realize two functions: CNC Turning Center with Y axis, or a VMC with 4th axis.



Specifications TF01

4 Axis Turning Center Mode		4 Axis VMC Mode	
Max Swing Dia. Over Bed	400mm	4th Axis Center Height	140mm
Max Swing Dia. Over Slide	280mm	Bridge Plate Size	500x45x200mm
Max. Turning Dia.	400mm	T Slot	12x3x70mm
Max. Length of Workpiece	300mm	Spindle Center to Column	270mm
Spindle Size	42mm	Spindle Nose to Table	300mm
Max. Dia. of Through Hole	42mm	Max. Load	200kg
3 Axis Travel	300mm	"Y" Axis Travel	200mm
Y Axis Travel	200mm	"Z" Axis Travel	200mm
Z Travel	300mm	"W" Axis Travel	500mm
4 Rapid Traverse	200mm	"V" Axis Rapid Speed	20mm/min
Y Rapid Traverse	100mm	"Z" Axis Rapid Speed	10mm/min
Z Rapid Traverse	200mm	"W" Axis Rapid Speed	20mm/min
Turning Spindle Nose Type	A2-B	Turning Spindle Nose Type	A2-B
Turning Spindle Motor	7.5/11kW	Turning Spindle Motor Power	7.5/11kW
Max. Turning Spindle Speed	2000 / 4000rpm	Max. Turning Spindle Speed	2000 / 4000rpm
Milling Spindle Type	BT30	Milling Spindle Type	BT30
Max. Milling Spindle Speed	8000rpm	Max. Milling Spindle Speed	8000rpm
Milling Spindle Motor	3.7/5.5kW	Milling Spindle Motor	3.7/5.5kW
Turning Turret Stations	8	Turning Turret Stations	8
Turning Tool Change Time-Adjuster	±0.4/5s	Turning Tool Change Time-Adjuster	±0.4/5s
Milling ATC Capacity	8	Milling ATC Capacity	8
*Max. weight of milling tool	2kg	*Max. Weight of Milling Tool	2kg
*Milling Tool Change Time	±0.5s	*Milling Tool Change Time	±0.5s
*Air source pressure	0.5-0.8Mpa	*Air Source Pressure	0.5-0.8Mpa
Chuck Size	8"	Rotary Chuck Size	8"
Spindle	M75	Spindle	M75
Travel Of Tailstock Slaves	100mm	Travel Of Tailstock Slaves	100mm
Travel Of Tailstock	100-500mm	Travel Of Tailstock	100-500mm
C Axis Index Resolution	0.01°	4th Rotary Index Resolution	0.001°
C Axis Machining Accuracy	±0.04 / ±0.02	4th Index Accuracy	±0.04 / ±0.02
Overall Dimension(LxWxH)	3000*1300*1900/4000*1700*1400mm		
Weight(Around)	3000*4200/4000*5200kg		

Note: * means optional, ** means equal to.

MULTI-TURRET SERIES



MULTIPLE TURRETS MULTIPLY YOUR PRODUCTION

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

This machine's development was driven by the demand of manufacturing manufacturers. The T-MULT 2700V combines the highest levels of accuracy, rigidity and efficiency.

As a result of longer production volumes and high material costs.

T-MULT has produced a machine that operates at the highest levels of performance, providing you with a powerful solution for increasing your competitive advantage.

GT260V DOUBLE TURRETS TURNING CENTER

Experience The Real Power

High Speed Tool Change Turnst; 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.

- 1 Hydraulic Dashboards
- 2 Accessories & Tool Box
- 3 Alarm Lamp
- 4 Coolant Tank
- 5 Central Auto Lubrication System
- 6 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.

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 Dashboards are in the left and front side, chuck, turret and general hydraulic pressure are all observed clearly and neatly.

GT260V DOUBLE TURRETS TURNING CENTER

Scientific Design Structure

By centering the machine symmetrically from the spindle, heat is distributed evenly and accurately during continuous machining. Overall machining efficiency is increased. As GT260V-650 is standard with a spindle unit type tailstock, a slim shaft workpiece can be easily made with straight stretch and lower turret support process by selecting a hydraulic clamping chuck and servo driven slide.

- 1 Upper Turret Gang Type Tools As Option
- 2 Sub Turret Gang Type Tools As Option
- 3 30 Degree Robust Bed Offers Super Rigidity
- 4 Upper X1,Z1 Slides
- 5 Sub X2,Z2 Slides
- 6 Large Span Solid Casting Base Provides Perfect Axis Vibration Performance
- 7 Double End Support and Pre-load Super Precision Ballcourse
- 8 Cylindrical Roller Type Heavy Duty Linear Guideway
- 9 Big Capacity Right Removal Chip Tank
- 10 Direct Transmission Servo Motor With Backlash Free Couplings



Specifications

	Unit	GT260V	GT260V-650
Capacity			
Chuck Size	inch	8"	8"
Max Swing Dia. Over Bed	mm	φ580	φ580
Max. Length of Workpiece	mm	340	650
Max. Swing Dia. Over Slide	mm	φ200	φ200
Spindle			
Spindle Bore	mm	φ42	φ42
Max Dia. of Through Hole	mm	φ45	φ45
Spindle Nose	type	A2-4	A2-4
Spindle Speed	rpm	4000	4000
Main Motor Power	kW	11.15	11.15
Axis			
X1 Axis Travel	mm	160	160
Z1 Axis Travel	mm	340	650
X2 Axis Travel	mm	160	160
Z2 Axis Travel	mm	340	650
X1,Z1 Rapid Traverse	m/min	25	20
X2,Z2 Rapid Traverse	m/min	25	20
Turret			
Turret1 Station		8	8
Turret2 Station		8	8
GD Tool Shank size	mm	25x25	25x25
Boring Bar Size	mm	φ40	φ40
Tailstock			
Type of tailstock		N/A	SST
Taper of tailstock quill		N/A	M7x(Spindle unit type)
Travel of tailstock	mm	N/A	850
Start Bed Degree		90°	90°
Others			
Guideway Type		Linear Motion Guideway	Linear Motion Guideway
Power Capacity	kVA	20	25
Overall Dimension(L*W*H)	mm	2650x1850x2300	3300x1850x2300
Weight (Approx)	kg	7000	9000

Note: "N/A" means optional. "SST" means Spindle unit type Servo programmable Tailstock.



Standard Features

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

Optional Features

- Different Chucks and Collets
- Different Control Systems
- Different Spindle Speed and Bore Size
- Chip Conveyor
- Bar Feeder
- Gang Type Tool Holders



GT260V



DUAL-SPINDLE SERIES



TURNING CENTER TC500

Advanced 45 Degree Cross Y Axis

The **TC500** adopts an advanced 45 degree Y axis structure which is the fundamental performance of rigidity and compactness.

The **TC500** offers a standard chuck size of 8 inches for spindle 1 and 8 inches for spindle 2. The sub spindle specification enables continuous machining of both surfaces.

The combination of driven live tools and Y-axis function enables integrated machining from turning to secondary/back face machining, and multi-axis integration machining, allowing for process integration. The model provides the Z-axis turning, the milling and the Y-axis specification with various spindle and turret options. Customers can choose a "one-of-a-kind machine" that flexibly meets their own needs.



Specifications

	Unit	TC500
Capacity	Min. turning diameter	6.300
	Max. length of workpiece	430
	Max. swing dia. over slide	840.0
	Max. swing dia. over bed	800.0
Spindle	Hydraulic chuck (Outer chuck)	0
	Size of spindle hole	84.0
	Max. diam. of through-hole	80.0
	Spindle nose	A2.4
Sub-Spindle	Min. spindle speed	500
	Max. motor	22.50
	Hydraulic chuck	0
	Size of spindle hole	84.0
Axis	Max. diam. of through-hole	84.0
	Spindle nose	A2.4
	Min. spindle speed	500
	Max. motor	11.25
Feed Rate	Z axis travel	100
	X axis travel	400
	Y axis travel	400
	X axis travel	700 (1000)
Feed Rate	X/Z/Y-axis rapid traverse	24000/10
	X/Z/Y-axis feedrate	3000/8 3000/8 3000/8
	Cutting feed rate	10
Turret	Type of turret	60/120
	No. of tool	10
	OD tool shank size	20/25
	Boring tool shank size	25/2
	Live tooling holder	2.25 T
*Tailstock	Max. speed of live tooling	3000
	Type of tailstock	Series-programmable
	Type of approach unit	A75
Others	Travel of tailstock	80-430
	Weight (about)	5000
	Overall dimension (L x W x H)	2600 x 1600 x 2200

Note: *111 means optional



Series TC500 Frame

DUAL-SPINDLE DT500E-S/TN500-S/STL8-S SERIES

Machine Characteristics

Standards with cylindrical roller heavy duty linear motion guideways, pre-loaded high class ball screws, NSK Bearings, DDS spindles, centralized oil lubrication, DT500E-S/TN500-S/STL8-S are modular designed and manufactured using only the best parts and materials to handle maximum capacities with ease.

Standard Features

- Hydraulic 3-Jaw Chuck
- 12 Stations BMT Turret
- Sub Spindle
- Work Light
- Tri-Color Alarm Light
- Automatic Lubrication System
- Automatic Locking System

Optional Features

- Diffuser Chucks and Collets
- Diffuser CNC Control Systems
- Diffuser Spindle Bore Geometries
- Chip Conveyor (Right or Rear side)
- Tool Setter
- Bar Feeder
- Safety Robot

Specifications

	Unit	STL8-S	TN500-S	DT500E-S
Capacity	Max. turning diameter	mm 325	325	325
	Max. length of workpiece	mm 800, *1000	800, *1000	800, *1000
	Max. swing dia. overtable	mm 800	800	800
	Max. swing dia. over slide	mm 380	380	430
Spindle	Hydraulic chuck	mm 8	8	8
	Dia. of spindle bore	mm 80	80	80
	Max. dia. of through-hole	mm 80	80	80
	Spindle taper	mm A2.5	A2.5	A2.5
Sub Spindle	Max. spindle speed	rpm 4000	4000	4000
	Main motor	kW 22/30	22/30	22/30
	Hydraulic chuck	mm 8	8	8
	Dia. of spindle bore	mm 80	80	80
Axis	Max. dia. of through-hole	mm 80	80	80
	Spindle taper	mm A2.5	A2.5	A2.5
	Max. spindle speed	rpm 4000	4000	4000
	Main motor	kW 11/15	11/15	11/15
Turret	A axis travel	mm 200	200	200
	Z1-Z2 axis travel	mm 800, *1000	800, *1000	800, *1000
	Y axis travel	mm 50	50	100 (optional, *140 (optional))
	X axis rapid traverse	mm/min 20	20	20
	Z axis rapid traverse	mm/min 20	20	20
	Y axis rapid traverse	mm/min 50	50	10
Structure	Open air type	mm 800*1000	800*1000	800*1000
	No. of tool	12	12	12
	OD tool change size	mm 20*20	20*20	20*20, *25*20
	Max. length of tool holding	mm 80	4000, *6000	4000, *6000
Others	Overall dimensions (L*W*H)	mm 115, *140	115, *140	115, *140
	Weight (optional)	kg 2000	2000	2000

Note: * optional



DUAL-SPINDLE AUTOMATION SA28-S SERIES

SA28-S Fixed Spindle & Movable Spindle

Meet the new low cost option for dual-spindle machining. Advantages of dual-spindle/turret machining centers include:

- One machine is cheaper than two
- More accurate when a machining process is accomplished on a single machine, rather than moving the part from machine to machine.
- Lower labor cost due to reduced set-up requirements.

In the past, the problem with dual-spindle machines has been the price - too high to justify. Z-MAT has now introduced the SA28-S Dual-spindle Turning Center. This high quality machine has the capabilities of traditional dual-spindle machines - at a much lower price tag. Finally, here is an automation option you can use - and price justify.



Specifications

	SA28-S	Sub-Options
Standard machining dia.	4-40mm	
Max. lat. dia.	4-200mm	
X axis travel	300mm	
Z axis travel	200mm	
Y axis travel	80mm	
A-Z rapid traverse	10/10 mm/min	
Spindle bore	4-27mm, *8-40mm	8-32mm
Spindle bar capacity	4-20mm, *8-40mm	8-20mm
Spindle speed	3000rpm	3000rpm
Spindle motor model	Hydraulic motor	Hydraulic motor
Spindle motor power	Clamp type: 10kW, *10-Station turret: 1.75-3.0kW	Station type: 2.2kW, 7.5kW
Spindle taper	8-40mm	
Spindle taper	30°, *40°	
Dimension(L*W*H)	1000*1000*1800mm	
Weight	1000kg	



Secondary Spindle Options

If you secondary spindle is required on the machine carriage, it can spindle is located on the side of the machine.

Main Spindle Options

Highly rigid frame structure with wide cast provides high stability and high-precision stability.

Center-Mounted Ball Screw

Center-mounted ball screw eliminates torque - increasing speed and efficiency. Dual air-bearing bearings structure support ball screw for optimal operational accuracy.

Stable Base Structure

Machine base and bed are one-piece casting, more thick design. This provides optimal rigidity and accuracy.

DOUBLE-SPINDE DA SERIES

Dual Spindle Automation

Design and Build for Mass Production

Together with robot or auto loading system, Z-Mat dual-spindle turning machine could realize two channels machining, a complete advanced automation on one single machine.

DA66-G Moveable Spindle + Moveable Spindle

Center-Mounted Ball Screw

Center mounted ball screws along with quality pre-loaded bearing assemblies assure optimal power transmission, speed and accuracy.

Main and Sub-Spindles

Both spindles adopt servo high-speed motors or DDG spindle options. This level of speed and synchronization assures total process accuracy and efficiency.

Heavy Linear Guideways

Extra heavy linear guides and rails, coupled with wide way spacing, providing superior rigidity.

Start Bed Design

30" start bed layout provides a reliable, efficient structure. Optimal chip removal is accomplished. Provides easy operator access – an important consideration for dual spindle set-ups and operation.

Mono-Block Casting

Lathe bed and machine base are produced in a single cast unit. This heavy, quality cast structure provides a strong foundation for operations that require high-speed yet smooth, multiple axis movements and direction changes.



Note: DA66-G Frame

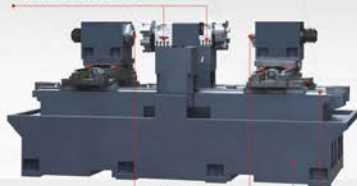


Specifications

	DA66-G	DA88-T
Bed structure	30" Flar	30" Flar
Max. machining dia.	Ø 160mm	Ø 200mm
Standard machining dia.	Ø 150mm	Ø 200mm
2 spindles type	A2-S	A2-S, A2-R
2 spindles taper	M76	1.00
2 spindles A2 end flange	Ø76mm/Ø80mm	Ø80mm/Ø80mm
2 spindles A2 end flange	1975 Axial	1975 Axial
2 spindles lead	Ø100mm	Ø100mm
2 spindles lat capacity	Ø 40mm	Ø 100mm
2 spindles speed	3000rpm	3000, 3600rpm
2 spindles chuckholder	Ø Hydraulic Chuck	4.5" Ø Hydraulic Chuck
2 spindles motor power	Hydraulic motor	Right Hydraulic motor
Spindle type	1.5/11 kW	7.0/11 kW
Spindle type	Servo type	4-Balun Servo
Overall dimensions (mm)	2000x1700x1800	2000x1800x2000
Weight (kg)	4200kg	4800kg

Double Turrets

Dual 8/12 stations Turrets provide sufficient tools.



Note: DA88-T Frame

Main and Sub-Spindles

Workpieces are exchanged from main to sub spindle and work in two separate working (turning), which tremendously increases productivity.

Base and Bed

Wide span base and bed are in a one piece casting. This solid base guarantees great reliability.

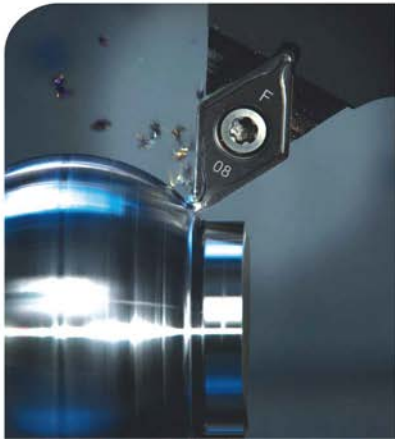
Ball screws and Guideways

Two crossed slides, and symmetry structure design meet both rigidity and efficiency.

FLASH FAMILY TURNING CENTERS

FLASH SL/FL/FTL SERIES

The FLASH family of CNC lathes were designed with speed and accuracy in mind. FLASH CNC lathes feature both slant bed and flat bed designs. The SL and FL series lathes are typically set-up for gang tool operations – optimal for high speed, low-cost turning requirements. Live tooling, turrets and various chuck options are easily added. The FTL series includes a tailstock for added functionality.



FLASH SL SERIES

Slant Bed with Linear Guideway

SL280/ SL340/SL350/ SL400/SL450/ SL580

Symmetrical Headstock

The main spindle design is based on the concept of "Bilateral Symmetry". The major benefit of this design is the elimination of heat expansion at higher speeds. This assures high accuracy and rigidity on all SL turning centers – while performing both forward and reverse turning operations.



Sleeve-Type Follow Rest

Longer parts requiring only simple turning operations can be machined accurately with good repeatability using the sleeve follow rest. This option supports small shaft parts working like a Swiss-type CNC lathe – with the accuracy of comparables, or better accuracy and repeatability.



Gang Plate and Tooling

Gang type tools allow for a broad selection of tooling – allowing for more turning operations and reduced cycle time. The results often mean more parts made at the lowest price possible.

Slant Bed

"True Align" slant bed design increases machine accuracy. Slant bed design increases operator efficiency during tooling set-ups and optimizes the floor of chips and coolant.



Wide Spaced Linear Guideways

Extra wide spacing between linear guideways adds leverage – even during heavy cuts. This assures greater rigidity and accuracy.



28M/M Rapid Feed Rate (Model SL280/SL340)

High quality components like Bosch Rexroth linear guideways and PMS ball screws assure extra high rapid feed speeds. Quality components also provide for higher accuracy, lower operating costs and minimal maintenance requirements.



Note: SL280, SL340, SL350, SL400, SL450's base and bed are one piece casting, monoblock design.

*The Beauty
of Speed and
Accuracy*

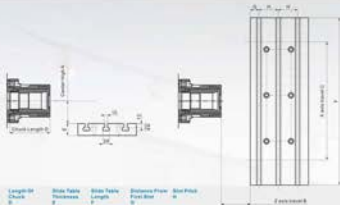
580mm X Axis Travel

Generous X axis travel, coupled with an extra large work table allows for maximum tooling options – including live tooling or high-speed turret.

FLASH SL FEATURES

Chuck/Table Interface Diagrams

Flash SL series are standard with gang type tools and collet chuck, which offers infinite space for the creative application engineers. Users can design their own type tool holders and fixtures to optimize their production. The chuck/table interference diagrams will help you to calculate the machining capacity after changing different clamping and tooling systems.



Model	Spindle Name	Clamping Type	Chuck Height A	Z Axis Travel M	X Axis Travel E	Length Of Chuck B	Slide Table Thickness F	Slide Table Length V	Distance From Post Bar G	Star Pinch H
SL200	A2-B	2-Mat collet	75mm	240mm	200mm	110.5mm	27mm	620mm	20mm	60mm
		175C collet 9" chuck	75mm	220mm	200mm	127mm	27mm	620mm	20mm	60mm
SL240	A2-B	2-Mat collet	90mm	200mm	240mm	110.5mm	27mm	620mm	20.5mm	60mm
		175C collet 9" chuck	90mm	180mm	240mm	127mm	27mm	620mm	20.5mm	60mm
SL300	A2-B	2-Mat collet	75mm	200mm	200mm	87.5mm	27mm	620mm	20.5mm	60mm
		175C collet 9" chuck	75mm	200mm	200mm	127mm	27mm	620mm	20.5mm	60mm
SL400	1-A (2H)	2-Mat collet	60mm	200mm	400mm	110.5mm	40mm	600mm	20.5mm	60mm
		175C collet 9" chuck	60mm	220mm	400mm	127mm	40mm	600mm	20.5mm	60mm
SL400	A2-B	2-Mat collet	80mm	400mm	400mm	110.5mm	40mm	600mm	20.5mm	60mm
		175C collet 9" chuck	80mm	400mm	400mm	127mm	40mm	600mm	20.5mm	60mm
SL500	A2-B	2-Mat collet	60mm	200mm	500mm	110.5mm	40mm	700mm	20mm	60mm
		175C collet 9" chuck	60mm	200mm	500mm	127mm	40mm	700mm	20mm	60mm

Reconsidering the Obvious

Perfect Combination Unsurpassed Productivity

Linear Guideway

- Higher accuracy and faster speeds than ordinary box ways.
- No adjusting - Maintenance free and very accurate.

Gang Type Tooling

- No indexing - Direct contact with individual tool during each turning operation. Solid and Highly Accurate. Turned and toolpost may lose accuracy each time a tool changes.
- Low failure rate - low maintenance compared to turret or tool post.



The machining accuracy can easily reach **<0.01mm**
Machining productivity **increase by 20-90%** than traditional
Box guideway + Toolpost CNC lathe!

Most Flash Series models are standard with this perfect match



An Even Better Option!

Reliable and Economical
**Turning - PLUS,
Milling,
Drilling & Tapping**
True Multi-Task,
Multi-Operation Machining

C Axis, Y Axis, and Live Tooling Options are Available on Most FLASH Series Lathes

FLASH SL SERIES

Slant bed, Linear guideway

Standard Features

- Hydraulic Chuck
- Gang Type Tooling
- Ergonomic Operator Panel Design
- Automatic Lubrication System
- Automatic Coolant System
- Built In Safety Features

Optional Features

- Different Chucks and Collets
- Different Control Systems
- Live Tooling
- Bar Feeder



Machine Characteristics

- Heat treated and annealed high quality cast iron base - provides a strong foundation for the high speed, highly accurate SL Series of CNC Lathes.
- True Slant Bed design is highly rigid and withstands heavy cutting forces.
- Slant bed also allows for easy operator access and efficient chip removal.
- The combination of high X/Z rapid speeds and gang tool set-up increases productivity tremendously. Highly accurate parts at the lowest cost.
- Quality machine at a value price - High volume production and good QC.



Specifications

	Unit	SL280	SL340	SL350
Capacity	Chuck (inch)	Hydraulic Chuck "Hydraulic Chuck 8" - 1"	Hydraulic Chuck "Hydraulic Chuck 8" - 1"	Hydraulic Chuck "Hydraulic Chuck 8" - 1"
	Max. swing dia. over bed	mm 840	840	840
	Max. length of workpiece	mm Collet 200, Chuck 210	Collet 200, Chuck 170	Collet 200, Chuck 200
Spindle	Max. swing dia. over slide	mm 810	810	810
	Spindle bore	mm 40	40	40
	Max. dia. of through-hole	mm 40	40	40
	Spindle nose	A2-6, 1A2-6, 1A2-8, 1A2-8	A2-5, 1A2-5, 1A2-6, 1A2-6	A2-5, 1A2-5
	Max. Spindle speed	rpm 4000, 4000, 4000	3000, 3000, 3000	4000, 4000, 4000
Max. motor power	kW 3.7/5.5, 7.5/11.5	3.7/5.5, 7.5/11.5	3.7/5.5, 7.5/11.5	
Axis	X travel	mm 300	340	350
	Z travel	mm 240	200	200
	X/Z rapid traverse	m/min 28/28	28/28	28/28
Toolpost	Type	Gang type	Gang type	Gang type
	No. of tool stations	6-8	4-7	6-8
	CD tool and bore tool chuck	mm 20x20 / 8.25	20x20 / 8.25	20x20 / 8.25
Structure	Inclined bed degree	30°	30°	30°
	Guideway type	LM	LM	LM
Others	Power capacity	kVA 11	11	12
	Dimensions (L x W x H) (mm)	2150x1320x1800	2000x1650x1800	2000x1600x1800
	Weight (mm)	kg 2800	2100	2100

Note: "" means optional, "NA" means not available, "LM" means linear motion guide way

Full Range of Turning Machines



Specifications

	Unit	SL400	SL450	SL580
Capacity	Chuck (inch)	Hydraulic Chuck "Hydraulic Chuck 8" - 1"	Hydraulic Chuck "Hydraulic Chuck 8" - 1"	Hydraulic Chuck "Hydraulic Chuck 8" - 1"
	Max. swing dia. over bed	mm 840	840	840
	Max. length of workpiece	mm Collet 200, Chuck 210	Collet 200, Chuck 200	Collet 200, Chuck 200
Spindle	Max. swing dia. over slide	mm 810	810	810
	Spindle bore	mm 40	40	40
	Max. dia. of through-hole	mm 40	40	40
	Spindle nose	A2-5, 1A2-6, 1A2-8	A2-5, 1A2-6, 1A2-8	A2-5, 1A2-6, 1A2-8
	Max. Spindle speed	rpm 4000	4000	4000
Max. motor power	kW 3.0/7.5	3.0/7.5	3.0/7.5	
Axis	X travel	mm 300	300	300
	Z travel	mm 200	410	320
	X/Z rapid traverse	m/min 18/18	20/20	20/20
Toolpost	Type	Gang type	Gang type	Gang type
	No. of tool stations	6-8	6-8	6-10
	CD tool and bore tool chuck	mm 20x20 / 8.25	20x20 / 8.25	20x20 / 8.25
Structure	Inclined bed degree	45°	45°	45°
	Guideway type	LM	LM	LM
Others	Power capacity	kVA 12	12	15
	Dimensions (L x W x H) (mm)	2000x1600x1710	2000x1600x1800	2000x1600x1800
	Weight (mm)	kg 3000	2800	3000

Note: "" means optional, "NA" means not available, "LM" means linear motion guide way

FLASH FL SERIES

Flat Bed with Linear Guideways

Machine Characteristics

- Linear Guideways are protected by stainless steel telescoping guards – provides maximum protection from chips and coolant and extended machine life.
- Center mounted ball screws are placed between the bed ways, minimizing side torque and friction. Provides cooler operation, better dynamic efficiency and longer life.
- Servo motors and drives on X/Z axes. Spindle can be driven by VFD or Servo.
- Various control systems, chucks and tool posts are available. Highly configurable to fit your needs.

The FL Series is produced at high volume in our factory - using world standard quality control processes. These facts contribute to the FL lathe's reputation in the world market for excellent quality at a reasonable price. We produce a great machine at a great price, and pass the savings on to you.



Smart Design – and Powerful

This series allows high flexibility in tooling configurations. A wide range of gang type, turret, milling, and polygon tools can be combined to fit your specific part production task.

Various Spindle Options

Different speeds, spindle bore and chuck options to match your needs

Center Mounted Ball Screws

Ball screws are mounted between the ways – reducing side torque and friction and increasing speed and longevity.

1-Piece Mono-Block Casting

Bi-Laterally Symmetrical

Complete bi-laterally symmetrical machine body and head stock design increases rigidity and stiffness in all movements of the machine. An added feature bonus is the compact dimensional casting, which keeps advanced performance in a smaller footprint.

Linear Motion Guide Ways

Linear guideway bearings are pre-loaded at the factory for maximum balance of accuracy and smooth motion. This provides axis movement that does not require adjustment, uses less power and will out perform standard hard ways. Automatic lubrication system assures optimal lubrication, which maximizes machine life.

Customers report high satisfaction and high productivity with their FL Series CNC Turning Centers. That's why it's one of our biggest selling lathes!



FL Series 300 FL Head

FLASH FL SERIES

Flat bed, Linear guideway

Standard Features

- Manual 3-Jaw Chuck (For Swing > 400mm)
- Hydraulic Coffer (For Swing < 400mm)
- Gang Type Tooling (For Swing < 400mm)
- 4-Station Tool Post + Gang Plate (For Swing > 400mm)
- Ergonomic Operator Panel Design
- Automatic Lubrication System
- Automatic Coolant System
- Built-In Safety Features

Optional Features

- Hydraulic Chucks
- Different Spring Collars
- Different Control Systems
- Live Tooling
- Bar Feeder
- 8-Station Turret (Available on FL300/FL400/FL500/FL550/FL630)



Full Range of Turning Machines

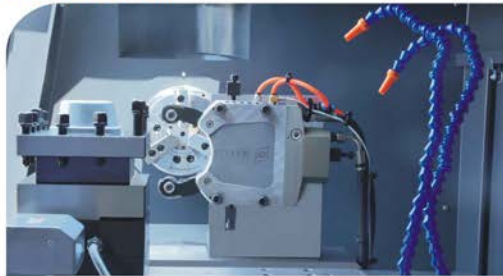


Specifications

	Unit	FL280	FL300	FL400	FL500	FL550	FL630	
Capacity	Chuck type	Hydraulic coffer *Hydraulic coffer	Hydraulic coffer *Hydraulic coffer, *chuck 8"	Manual chuck 8"	Manual chuck 10" *Hydraulic chuck 8", *" *Hydraulic chuck 10", *"	Manual chuck 12" *Hydraulic chuck 10", *"	Manual chuck 16" *Hydraulic chuck 10", *"	
	Bed type guideway	Fixed LM	Fixed LM	Fixed LM	Fixed LM	Fixed LM	Fixed LM	
	Max. swing dia. over bed	mm	Ø 200	Ø 300	Ø 400	Ø 500	Ø 630	Ø 800
	Max. length of workpiece	mm	195	300, *180(chuck), *180(chuck)	300	300	300	400
Max. swing dia. over slide	mm	Ø 120	Ø 120	Ø 160	Ø 200	Ø 260	Ø 330	
Spindle	Spindle bore	mm	Ø 37, Ø 48, Ø 48	Ø 50, *Ø 50, *Ø 63	Ø 63, Ø 68, Ø 68	Ø 71, *Ø 82	Ø 105	Ø 120
	Max. dia. of through hole	mm	Ø 32, Ø 40, Ø 40	Ø 40, *Ø 40, *Ø 50	Ø 52, Ø 60, Ø 60	Ø 70, *Ø 82	Ø 97	Ø 110
	Spindle nose	mm	Ø 8-14, Ø 2-6, Ø 2-6	Ø 2-6, *Ø 2-6, *Ø 2-6	Ø 2-6, Ø 2-6, Ø 2-6	Ø 2-6, *Ø 2-6	Ø 2-6	Ø 2-11
	Spindle speed	rpm	3000, 1500	3000, *1500, *1500	2000, *1000, *1000	1500, *750, *750	1000, *500	1000
Spindle motor power	kw	3.7/5.5	3.7/5.5, *5.5/7.5	6.5/7.5	6.5/7.5, *7.5/11	7.5/11, *11/15	11/15, *15/18.5	
Axis	Ø 2 travel	mm	200/180	300/300	360/360, *360/360	360/360, *360/360	360/360	
	Ø 2 rapid traverse	mm/min	15/15	20/15, *20/15	20/20	15/15	20/20	
Toolpost	Type	Gang type	Gang type *4-station turret *4-station turret	Gang type *4-station turret *4-station turret	4-station turret *4-station turret *Gang type tooling	4-station turret *4-station turret *Gang type tooling	4-station turret *4-station turret *Gang type tooling	
	No. of tool stations	No.	4-8	4-12	4-12	4-12	4-12	
Others	Power capacity	kw	8	8	11	12	16	
	Dimensions (LxWxH)	mm	1700x1050x1500	1700x1200x1500	1800x1200x1600	2000x1200x1600	2500x1200x1800	
	Weight (approx)	kg	1300	1800	2800	3700	5000	

Note: *11 means optional, *NA means not available, *LM means linear motion guide way.

FLASH FTL SERIES



Machine Characteristics

- The lathe is built on its own guide way, similar to the main bed ways. This structure is highly rigid and accurate.
- Linear guideways are protected by telescoping stainless steel covers – maximizing ball screw protection and extending tool life.
- Center mounted ball screws absorb torque – providing better dynamic properties and greater stability over the life of the machine.
- Spindle drives up to 12,000 rpm. Spindle carries screws for IPT or Servo.
- Various control systems, chucks and tool holding systems are available.

The World's *First* and *Best* Design

You will be hard pressed to find another linear guide way type CNC lathe that has a center mounted ball screw and stainless covers over the full length of the ball screw and guide ways. This unique, 2 Patented design provides the perfect combination of long term speed, accuracy and repeatability for a CNC lathe of this size and design.



Various Spindle Options

Spindle Bore Options: 81/105/120mm
Different Spindle Speed Options

Center Mounted Ball Screw

Reduces torque – increases speed, efficiency, accuracy and machine life.

1-Piece Mono-Block Casting

Flash FTL one-piece casting is more expensive for tool and machine, but it provides better damping capacity, ensuring high accuracy and precise repeatability.

Heavy-Duty Linear Guideways

Heavy roller and ball-type linear guideways were selected for this heavy duty machine – so it has the efficiency advantages of linear guides, but also can compete with box ways for stability during heavy cutting operations.

500mm Wide Machine Base

Extra wide machine base adds mass and stability to this heavy-duty lathe designed for heavy-duty turning operations.

Various option features



8/22 stations turret



Vertical live tool (Y axis)



Hydraulic steady rest



Manual steady rest



Manual operation box

FLASH FTL SERIES

Flat bed, Tailstock, Linear guideway



Standard Features

- Manual 3-Jaw Chuck
- 4-Station Tool Post Plus Gang Tool Plate
- Manual Tailstock
- Ergonomic Operator Panel Design & MPG
- Automatic Lubrication System
- Automatic Coolant System
- Work Lamp & Built-In Safety Features

Optional Features

- Different Chucks
- Different Control Systems
- B-Station Turret (except FTL300)
- Hydraulic Tailstock
- Bar Feeder
- C Axis & Live Tooling
- C Axis & 12 station Power Turret (for big model)



Full Range of Turning Machines



Specifications

	Unit	FTL300	FTL320 (*T)	FTL400 (*T)	FTL500 (*T)	FTL550 (*T)	FTL660 (*T)
Capacity	Chuck size	inch 6"	6"	6"	10", 8"	10", 8"	12", 10"
	Max. rotating dia. over bed	mm 300	300	300	300	300	300
	Max. length of workpiece	mm 180	1800 (without turret)	1800 (CPC) 1800 (turning) 1800 (turning)	1800 (CPC) 1800 (turning) 1800 (turning)	1800 (CPC) 1800 (turning) 1800 (turning)	1800 (CPC) 1800 (turning) 1800 (turning)
Spindle	Max. rotating dia. over slide	mm 410	410	410	410	410	410
	Spindle bore	mm 60	60	60	60	60	60
	Max. dia. of through hole	mm 60	60	60	60	60	60
Axis	Spindle nose	A2-B	A2-B	A2-B	A2-B	A2-B	A2-B
	Spindle speed	rpm 1000	1000	1000	1000	1000	1000
	Max. motor power	kW 3.7/5.5, 10.5/7.5	3.7/5.5, 10.5/7.5	5.5/7.5, 11/10	7.5/11, 11/10, 15/10.5	10/15, 15/10.5	10/15, 15/10.5
Tool post	4/2 travel	mm 200/200	200/200	200/200	200/200, 150/150, 200/200	200/200, 150/150, 200/200	200/200, 150/150, 200/200
	4/2 rapid traverse	mm/min 10/15, 20/20	20/15, 20/20	10/15, 20/20	10/15, 20/20	10/15, 20/20	10/15, 20/20
Tailstock	Type	4 station toolpost "gang" type tooling	4 station toolpost "B" station turret "gang" type tooling	4 station toolpost "B" station turret "gang" type tooling	4 station toolpost "B" station turret "gang" type tooling	4 station toolpost "B" station turret "gang" type tooling	4 station toolpost "B" station turret "gang" type tooling
	No. of tool positions	mm 4+2	4+2, 8+2	4+2, 8+2	4+2, 8+2, 12-station 12	4+2, 8+2, 12-station 12	4+2, 8+2
Structure	Tailstock type	Manual, Hydraulic	Manual, Hydraulic	Manual, Hydraulic	Manual, Hydraulic	Manual, Hydraulic	Manual, Hydraulic
	Type of part	M7x	M7x	M7x	M7x	M7x	M7x
	Taper of tailstock hole	mm 50	50	50	50	50	50
Others	Bed type, guideway	PlanLM	PlanLM	PlanLM	PlanLM	PlanLM	PlanLM
	Bed width	mm 300	300	300	300	300	300
Others	Power capacity	kVA 8	8	12	12	12	12
	Dimensions (L x W x H)	mm 1800 x 1800 x 1800	2200 x 1800 x 1800	2800 x 1800 x 1800	3200 x 1800 x 2100 (optional) 4000 x 1800 x 2100	3200 x 1800 x 2100 (optional) 4000 x 1800 x 2100	3600 x 1800 x 2100 (optional) 4400 x 1800 x 2100
	Weight (about)	kg 1800	2400	2800	4000-4300 / 4800-5200	4200-4500 / 5000-5300	4800-5100 / 5400

Note: "*" means optional, "N/A" means not available, "LM" means linear motion guide way, "T" means configured with turret and other higher configuration. Dimensions are only for the shortest length model. Different chucks and toolposts will affect the rear Max. cutting length capacity.
CPC: Spindle center to Tailstock center; Chuck: Spindle 3-jaw chuck to tailstock; Turret: 3-jaw chuck to tailstock while configured with 8/12 stations turret

POWER A SERIES TURNING CENTERS

A6 / A8L

When we set out to build a heavy duty cutting (hogging) machine we did a number of things:

- Increased spindle rigidity
- Widened guideway spacing
- Increased bed casting weight
- Increased spindle torque

The result is a machine that will take heavy cuts and still assure minimal tool tip vibration. Finer surface finish is the result – even when making heavy cuts.



POWER A SERIES

A6 / A8L

- 60° steep inclined bed, closer to operator
- 300% double size chip tank larger than Flash SL series
- 280% sized linear guide way slide block
- 45mm width heavy duty linear guideway
- 40mm ballscrew diameter

Power A8L rough cutting parameter



▪ Depth of cut

9mm (0.35in)

Material:	S45C (Carbon steel)
Cutting speed:	220m/min (721.8 ipm)
Feedrate:	0.4mm/rev (0.016ipr)

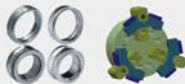
Greater Rigidity and Faster Speed



By using German-made BOSCH Rexroth heavy-duty linear guides, over-sized ball screws, thicker head stock ribs and wider bed ways we have created a highly rigid, high speed lathe. The POWER A Series is a true 40" steel bed lathe – significantly increasing machine accuracy and capacity. The steep start bed and over-sized chip tanks allow efficient chip removal, even during "heavy cut" turning operations. An optional chip conveyor is available.

Bearing Ring Solution

Power A machines are widely used in bearing industry. And Z-MaT has mature solutions for inner ring and outer ring machining.



Floating jaws

POWER A SERIES

A for 60 Degree Rigid Structure

Machine Characteristics

- German-made BOSCH Rexroth Linear Guideways
- High speed with heavy torque – suitable for machining hard materials
- 60° slant bed makes for easy chip removal
- Optional floating jaws for securely holding hard, thin-walled pipe



Standard Features

- Hydraulic Chuck
- Gang Type Tooling
- Frequency Inverter
- Work and Alarm Light
- Foot Pedal & Safety Features
- Automatic Lubrication System
- Automatic Coolant System

Optional Features

- Different Chucks & Collets
- Different Control Systems
- Larger Spindle
- Servo Spindle Motor
- Chip Conveyor
- Bar Feeder
- C Axis & Live Tooling



Built for High Speed Heavy Cutting

60° (Degree) Slant Bed

Operator is close to tooling stations for easier set-up and tool changes. Chip and coolant flow is more efficient with the slanted table incline.

Heavy Duty Spindle

Extra built-in ribbing on the headstock and higher torque spindle drive provides a spindle ready and willing to handle all-day heavy cutting.

Extended X Axis Travel

X Axis travel up to 380mm. Allows for a large number of gang, live tooling and turret mounted tools to be mounted on the table and sequentially moved to the point of tool to turning contact.



POWER ABL

Larger Ball Screw Diameter

40mm diameter ball screw supports heavy machining operations. Pre-loaded bearings are mounted on both ends of the ball screw assembly for optimal support.

Heavier Linear Guideways

Heavy duty ball linear guideways are necessary for heavy cutting. These heavy duty linear guides will hold up and maintain accuracy for the long term.

High Volume Chip Collection

Standard feature includes extra large chip collection tank. POWER A Series chip tanks are three times larger than chip tanks used on the FLASH Series. Chip conveyor optional.

One-Piece

Non-Block Casting

FULL RANGE OF TURNING MACHINE



Specifications

	Unit	POWER A6		POWER A6L	
Capacity	Chuck/Chuck size	mm	6" / 4"	6" / 4"	6" / 4"
	Max. turning outer dia.	mm	600	600	600
	Max. turning length	mm	320	300	300
Spindle	Max. turning dia. inner side	mm	615	615	615
	Spindle nose	mm	60	60	60
	Max. dia. of through hole	mm	60	60	60
Axis	Spindle nose	mm	62.5	62.5	62.5
	Spindle speed	rpm	3000	1400	1400
	Main motor power	kW	7.5 / 11	11	11
Toolpost	X axis travel	mm	380	380	380
	Z axis travel	mm	330	330	330
	XYZ repeat accuracy	mm	±0.01	±0.01	±0.01
Structure	Type of toolpost	mm	Gang type	Gang type	Gang type
	No. of tool stations	mm	4-8	4-8	4-8
	OD tool change size	mm	32/32	32/32	32/32
Others	Slant bed degree	mm	60°	60°	60°
	Guideway type	mm	Linear Motor	Linear Motor	Linear Motor
	Power capacity	kVA	18	18	18
Overall dimension (L x W x H)	mm	2100 x 1600 x 1750	2100 x 1700 x 1750	2100 x 1700 x 1750	
Weight (net/total)	kg	3500	3500	3500	

Note: *** Machine optional.

SUPER P SERIES

Super Precision CNC Turning Center

Standard Features

- Hydraulic 3-Jaw Chuck
- 3-Station Servo Turret
- Automatic Lubrication System
- Automatic Coolant System
- Work Light and Alarm Light
- Ergonomic Operator Panel

Optional Features

- 12-Station Servo Turret
- Different Chucks and Collets
- Different CNC Control Systems
- Different Spindle Bore Diameter
- Chip Conveyor
- Tool Setter
- Bar Feeder
- Automatic Hydraulic Tailstock



Specifications

	Unit	Super M06
Capacity	Chuck size	inch 6" - 12"
	Max. cutting dia. over tool	mm 150
	Max. length of workpiece	mm 300
Spindle	Max. cutting dia. over chuck	mm 150
	Spindle bore	mm 40/50 / 60/52
	Max. dia. of through hole	mm 4-45 / 4-52
	Spindle speed	rpm 42.5 / 102.4
Axis	X axis travel	mm 180
	Z axis travel	mm 300
	A-Z rapid traverse	mm/min 20/20
Turret	Carriage height	mm 80
	No. of tool stations	mm 3 / 5 / 12
*Tailstock	Type of tailstock	mm Hydraulic, LM
	Travel of tailstock quill	mm 120
Structure	Travel of tailstock	mm 120
	Structure design	mm 3D
Others	Power capacity	kVA 13
	Overall dimensions (L x W x H)	mm 1800 x 1600 x 1700
	Weight (approx.)	kg 3000

Note: "*" means optional, "LM" means linear motion guide way.

Servo Turret

Fast tool changes with high positioning accuracy. Increases overall machine accuracy and shortens cycle times.

Superior Spindle Unit

Superior standard spindle unit achieves high spindle runout accuracy - with high speed.

Automatic Tail Stock

Optional complete automatic tail stock offers optimal speed and convenience in longer part turning operations.



Slant Carriage

Table carriage is slanted triangle structure - solid and reliable.

High Accuracy Ball Screw

Ball screw bearing housing is precision ground and hand scraped to maximize bearing assembly accuracy.

Roller Linear Guideway

Large diameter cylindrical roller linear guideways - allows for heavy cutting at high accuracy.

Heavy Base Structure

Heavy, wide base structure provides superior damping and rigidity.

Optional Chip Conveyor

Can be installed on right side or back side of the machine.

HIGH PRECISION AND COMPACT SIZE

Machine Characteristics

- Spindle runout $\leq 2 \mu\text{m}/300$
- Space saving, compact footprint
- Smooth, efficient chip removal
- Built-in spring collets - low vibration, high accuracy
- Servo spindle motor, Bosch Rexroth linear guideway, THK ballscrew

Standard Features

- Hydraulic Collet (SP20)
- Pneumatic Collet (P30H)
- Work & Alarm Light
- Automatic Coolant System
- Automatic Lubrication System
- Gang Plate Work Table
- Tools & Tool Box

Optional Features

- Different Collets
- Different CNC Control Systems
- Parts Counter
- C Axis and Live Tooling
- Bar Feeder



Specifications

	Unit	SUPER P30H	SUPER SP20
Capacity	Max. cutting dia. over tool	mm 150	150
	Max. cutting length	mm 300	300
	Max. cutting dia. over chuck	mm 150	150
Spindle	Spindle bore	mm 40/50 / 60/52	40/50 / 60/52
	Max. dia. capacity of tool holder	mm 40/50	40/50
	Max. dia. of through hole	mm 4.5/4.5 / 5.0/5.0	4.5/4.5 / 5.0/5.0
	Spindle speed	rpm 42.5 / 102.4	42.5 / 102.4
Axis	X axis travel	mm 180	180
	Z axis travel	mm 300	300
	A-Z rapid traverse	mm/min 20/20	20/20
Toolpost	Type of tool post	mm Gang tool	Gang tool
	No. of tool stations	mm 4 / 5	4 / 5
Others	Power capacity	kVA 6.5	6
	Bed thickness (mm)	mm 1400 / 1200 / 1000	1240 / 1470 / 1640
	Weight (approx.)	kg 1400	1800

Note: "*" means optional.

HUNTER FAMILY TURNING CENTERS

Hunter STH /SH /FTH /FH Series

Machine Characteristics

The HUNTER Series are a new take on the traditional, economic box way CNC lathe. The new HUNTER lathe series offer outstanding acceleration, low friction guideways, precision ball screws – and a lower price point.

The series of HUNTER CNC lathes include the STH (Slant Bed with Tailstock), the SH (Slant Bed without Tailstock), the FTH (Flat Bed with Tailstock) lathe series and the FH (Flat Bed without Tailstock) lathe series.



HUNTER SERIES

STH /SH /FTH /FH

Constant Research and Ongoing Product Refinement

Evolving a Lathe Tradition: Improving the Flat Bed Box Way Design for CNC Turning

Unlike the old CK CNC lathe design, which has the ball screw mounted on the front side of the lathe bed, the HUNTER Series moved the ball screw to the middle of the lathe bed, between the guideways. This eliminates friction and ball screw torque – increasing efficiency and assuring higher speeds. The HUNTER lathes also have telescoping stainless steel guards that cover the ball screw along its entire length. This assures smooth operation and long machine life.



Comparison of tradition CK type CNC lathe



Reliable and Efficient Lubrication Oil Distribution



This efficient unit assures all machine components are lubricated evenly – extending machine operating life.

Double “V” Machine Bed Ways

Lathe carriage is continuously aligned for torque-free, smooth operation and increased accuracy. The center-mounted, covered ball screws increase the smoothness and speed of carriage movement along the V ways.



Pre-Loaded Ball Screws With Bumpers



A pre-loaded ball screw reduces thermal distortion. The ball screw bumper helps protect the ball screw in case of operator error or machine malfunction.

HUNTER FTH SERIES

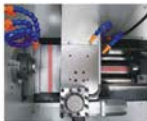
Smart CNC Solutions

Standard Features

- Manual 3-Jaw Chuck
- A-Station Tool Post
- Manual Tailstock
- Ergonomic Operator Panel Design & MPG
- Automatic Lubrication System
- Automatic Coolant System
- Work Lamp & Built-In Safety Features

Optional Features

- Different Chucks
- B-Station Turned
- Different Control Systems
- Hydraulic Tailstock
- Bar Feeder
- C-Axis & Live Tooling
- Steady Rest & Hydraulic Follow Rest
- Gear Box



Stainless Steel Telescopic Cover

Provide excellent chip-proofing and protect guide way to extend long life upon time

Revolutionize the NC/Conventional Lathe

Structured to real CNC, but kept the economical features 'Get the work done easily' featured in a smart way.



Wider bed width

Eliminate vibrations, Lower Center of gravity, Solid base for heavier cuts

Center Mounted Ball Screw

Reduces Torque Output - Increases speed, efficiency, accuracy and machine life. Double protection by surface case and stainless steel telescopic guide-way cover

Various Spindle Options

Spindle Bore from Maximum 40mm to Maximum 200mm Different Spindle Speed Options

Heavy-duty cross-slide

Accepts a variety of tool post options

Bi-Laterally Symmetrical Hard Guideway

The symmetrical hard-lead design allows for even wear of the bedways over time, resulting in maintained accuracy over the life of the machine.



Specifications

	Unit	FTH6130	FTH6136	FTH6140	FTH6150	FTH6160
Capacity	Chuck size	inch 6"	inch 6"	inch 6"	inch 12"	inch 12"
	Max. turning dia. over bed	mm 610	mm 610	mm 610	mm 1200	mm 1200
	Max. turning dia. over slide	mm 400 (max. 400mm)	mm 400	mm 400	mm 1000 (max. 1000mm)	mm 1000
Spindle	Spindle bore	mm 40, 50, 60, 70, 80	mm 40, 50, 60, 70, 80	mm 40, 50, 60, 70, 80	mm 40, 50, 60, 70, 80, 90, 100, 110, 120	mm 40, 50, 60, 70, 80, 90, 100, 110, 120
	Max. dia. capacity	mm 40, 50, 60, 70, 80	mm 40, 50, 60, 70, 80	mm 40, 50, 60, 70, 80	mm 40, 50, 60, 70, 80, 90, 100, 110, 120	mm 40, 50, 60, 70, 80, 90, 100, 110, 120
	Spindle speed	rpm 3000, 1500, 750, 450	rpm 3000, 1500, 750, 450	rpm 3000, 1500, 750, 450	rpm 3000, 1500, 750, 450, 2250, 1800, 1500, 1200, 900, 750, 600, 450, 300, 225, 150, 112.5, 75	rpm 3000, 1500, 750, 450, 2250, 1800, 1500, 1200, 900, 750, 600, 450, 300, 225, 150, 112.5, 75
	Max. motor power	kw 3.7, 7.5	kw 3.7, 7.5	kw 3.7, 7.5	kw 7.5, 15, 22.5	kw 7.5, 15, 22.5
Axis	X-axis travel	mm 200	mm 200	mm 200	mm 200	mm 200
	Z-axis travel	mm 400	mm 400	mm 400	mm 1000 (max. 1000mm)	mm 1000 (max. 1000mm)
	Y-axis (optional)	mm 0-150	mm 0-150	mm 0-150	mm 0-150	mm 0-150
Toolpost	Type of toolpost	A station toolpost, Spring tool	B station toolpost, Spring tool	B station toolpost, Spring tool	A station toolpost, Spring tool	B station toolpost, Spring tool
	No. of tool stations	mm 4	mm 4	mm 4	mm 4	mm 4
Tailstock	Type of tailstock	Manual, Hydraulic	Manual, Hydraulic	Manual, Hydraulic	Manual, Hydraulic	Manual, Hydraulic
	Type of tailstock quill	M70-M75	M75	M75	M75	M75, M75
	Travel of tailstock quill	mm 100	mm 100	mm 100	mm 100	mm 100
Structure	Bed width	mm 200	mm 200	mm 200	mm 400	mm 400
	Guideway type	Hard-lead	Hard-lead	Hard-lead	Hard-lead	Hard-lead
Others	Power capacity	kw 11	kw 11	kw 14	kw 18	kw 18
	Overall dimensions (LxWxH)	mm 1600x1000x1610	mm 1700x1000x1610	mm 1700x1000x1610	mm 2100x1000x1610	mm 2100x1000x1610
	Weight (approx.)	kg 1000	kg 1000	kg 1100	kg 1300	kg 1300

Note: "" design optional. "Center" means the distance between spindle center to tailstock Center, chuck to center distance will be less around 120-200mm.

HUNTER STH SERIES

Slant Bed Tailstock Hard Guideways

Standard Features

- Manual 3-Jaw Chuck
- 4-Station Tool Post - gang style
- Manual Tailstock
- Automatic Lubrication System
- Automatic Coolant System

Optional Features

- Hydraulic Chuck
- Spring Carlet System
- Hydraulic Tailstock
- Different CNC Control Systems
- Different Spindle

Machine Characteristics

- 30 degree slant bed - efficient chip flow and easier operator access
- Ergonomically designed adjustable panel
- Center-mounted lat screw - less tension and better accuracy
- STH10 and STH12 have cylindrical roller spindle bearings
- The most economical slant bed with tailstock in the market



There's only one place you'll find this Unique CNC lathe design - Z-MaT!

STH CNC lathes are designed to provide a cheaper and easier machining option - while providing real production capacity and accuracy. Perfect for R & D, education, manufacturing or just getting a business started. STH Series CNC Lathes are a very affordable option that will allow you to accomplish your machining goals easier and faster.

Z-MaT Original Design

Cost-Effective, Full Production Capable Slant Bed CNC Lathe



Specifications

	Unit	STH6	STH8	STH10	STH12
Capacity	Chuck size	inch 6"	8"	10"	12", 14"
	Max. swing dia. over bed	mm 630	813	1013	1213
	Max. length of workpiece	mm 290, 340(max)	360, 410(max)	430	490
	Max. length of workpiece	mm 290	360	430	490
	Max. swing dia. over slide	mm 610	793	993	1193
	Spindle bore	mm 42.0	50.8	63.5	76.2
	Min. dia. of through hole	mm 41.0	49.8	62.5	75.2
	Spindle nose	mm AD-6	AD-6	AD-6	AD-11
	Spindle speed	rpm 1000	1200	1500	1800
	Spindle speed	rpm 1400	1600	1900	2300
	Max. motor power	kW 4.5	5.5	7.5, 11	11
	X axis travel	mm 300	360	450	540
	Z axis travel	mm 290, 340(max)	360, 410(max)	450, 510(max)	540, 600(max)
	GTZ rapid traverse	mm/min 8.12	8.12	8.12	8.12
	Type	4 station toolpost + Gang type tooling	4 station toolpost + Gang type tooling	4 station toolpost + Gang type tooling	4 station toolpost + Gang type tooling
Toolpost	Type	4 station toolpost + Gang type tooling	4 station toolpost + Gang type tooling	4 station toolpost + Gang type tooling	4 station toolpost + Gang type tooling
	No. of tool stations	mm 4-6	4-6	4-6	4-6
	OD tool shank size	mm 20x20	25x25	25x25	32x32
	Type of tailstock	Manual, Pneumatic, Hydraulic	Manual, Pneumatic, Hydraulic	Manual, Hydraulic	Manual, Hydraulic
Tailstock	Type of tailstock	Manual, Pneumatic, Hydraulic	Manual, Pneumatic, Hydraulic	Manual, Hydraulic	Manual, Hydraulic
	Travel of tailstock	mm 107.5	131.5	167.5	191.5
	Travel of tailstock	mm 100	120	150	180
	Swivel angle	mm 30°	40°	40°	40°
	Swivel angle	mm 30°	30°	30°	30°
Structure	Guideway type	mm Hard	Hard	Hard	Hard
	Power capacity	kVA 8	8	11	15
	Overall dimension (LxWxH)	mm 2100x1300x1700	2100x1400x1800	2400x1500x1800	2800x1510x1800
	Weight (approx)	kg 1700	2400	3200	3900

Note: **** means optional.

HUNTER SH SERIES

Slant bed, Hard guideway

Standard Features

- Pneumatic Spring Carlet
- Gang Tool Tools
- Frequency Inverter
- Work and Alarm Lights
- Full Enclosure safety guard
- Automatic Lubrication System
- Automatic Coolant System

Optional Features

- Hydraulic Chuck/Carlet
- servo Spindle Drive
- Different CNC Control Systems
- High Speed Spindle Unit
- C Axis and Live Tooling



Specifications

	Unit	SH30B	SH40B	SH52B
Capacity	Chuck size	inch 30mm	40mm, 50"	52mm, 60", 60"
	Max. swing dia. over bed	mm 630	813	913
	Max. length of workpiece	mm 300	350	400
	Max. swing dia. over slide	mm 600	793	893
	Spindle bore	mm 30.7	40.8	50.8
	Bar dia. capacity	mm 30.2	40.2	50.2
	Spindle nose	mm SH3-4	SH3-4	SH2-5
	Spindle speed	rpm 3000	3000	2000
	Max. motor power	kW 3.0	4.0	5.0
	X axis travel	mm 300	360	360, 360
	Z axis travel	mm 200, 250, 250(max), 180(max)	250(max), 180(max)	300(max), 240(max)
	GTZ rapid traverse	mm/min 8.12	8.12	8.12
Axis	Type of tailstock	Gang type	Gang type	Gang type
	No. of tool stations	mm 4-6	4-6	4-6
	OD tool shank size	mm 18x18	20x20	20x20
Tool post	Type of tailstock	Gang type	Gang type	Gang type
	No. of tool stations	mm 4-6	4-6	4-6
	OD tool shank size	mm 18x18	20x20	20x20
Structure	Guideway type	mm Hard	Hard	Hard
	Power capacity	kVA 7	8	10
	Overall dimension (LxWxH)	mm 1800x1000x1400	1800x1100x1400	1800x1200x1300
	Weight (approx)	kg 1100	1400	1800

Note: **** means optional.

Mark: Chip conveyor can be installed either right side or back side only for SH52B.



HUNTER FH SERIES

Flat bed, Hard guideway

Machine Characteristics

Center Mounted Ball Screw Assembly reduces friction and side forces – improving dynamic characteristics and long term machine stability.
 Telescoping, stainless steel ball screws/long guards completely protect slide operation from chips, coolant and debris.
 Large contact area between bed ways and machine carriage promotes stability and accuracy.
 Double row, cylindrical roller spindle bearings improve rigidity on larger machines.

Standard Features

- Manual Z-axis Chuck
- 4 Station Tool Post
- Black and Alarm Lights
- Full enclosure safety panel
- Automatic Lubrication System
- Automatic Coolant System
- Frequency Inverter Drive
- Pneumatic Coder (FH30B-FH400)
- Long tool bar (FH30B)

Optional Features

- Hydraulic Chuck Catcher
- Servo Spindle Stop-Drive
- Different CNC Control Systems
- High Speed Spindle Unit
- Larger Spindle Bore
- Extra precision Tooling
- Bar Feeder



Unique, Efficient Design
 Ball Screw is Mounted
 Between FH Lathe Guideways



Specifications

	Unit	FH30B	FH40B	FH360	FH400	FH630
Capacity	Center capacity/Chuck size	inch 30mm, 1"	40mm, 1.5", 1.75"	6"	8", 10"	12", 15"
	Max. weight the over bed	mm 6100	6300	6100	6420	6620
	Max. length of workpiece	mm 180	200, 140	200	200	200
	Max. swing dia. over slide	mm 810	810	810	810	810
Spindle	Spindle bore	mm 60	80, 80, 80	80	100, 100, 100	120, 120
	Bore dia. capacity	mm 810	840	840	840	840
	Spindle nose	mm 840 1.4	840 1.4	840 1.4	840 1.4	840 1.4
	Spindle speed	rpm 3000	3000	3000	3000	3000
Axis	Max motor power	kW 3.5, 4.0	4.5	5.5	6.0	6.0
	A axis travel	mm 200	200, 140	200	200, 140	200
Tool post	Z axis travel	mm 100	100, 140	100	100	100
	C/D rapid traverse	mm/min 0.0	0.0	0.0	0.0	0.0
Structure	Type of bedstock	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"
	No. of tool stations	mm 4-5	4-5	4-5	4-5	4-5
	Tool change time	mm 10-15	10-15	10-15	10-15	10-15
	Tool width	mm 200	200	200	200	200
Others	Power capacity	mm 3	3	3	3	3
	Overall dimension (LxWxD)	mm 1400x1100x1420	1400x1200x1480	1400x1200x1480	1400x1200x1480	1400x1200x1480
	Weight (calculated)	kg 1000	1000	1000	1000	1000

Note: "" means optional

CK SERIES

Machine Characteristics

Heavy feedback & large spindle bore. Heavy quality cast base & lathe bed, high torque with good spindle speed, hardened & ground bed ways, good for turning long work pieces, centralized lubrication system.

Standard Features

- 3-axis Chuck or Catcher
- 4 Station Tool Post
- Manual Tool Stop
- Center Stock
- Automatic Lubrication System
- Automatic Coolant System

Optional Features

- Different Drives
- Different CNC Control Systems
- High speed Tool Stop
- Higher Spindle Speed
- Larger Diameter Spindle Bore



Specifications

	Unit	CK6125	CK6130	CK6136	CK6140	CK6150
Capacity	Chuck size	inch 125mm, 5"	8"	8"	10"	12"
	Max. weight the over bed	mm 6000	6300	6300	6420	6620
	Max. length of workpiece	mm 270 (center), 170 (back)	280 (center), 200 (back)	300	300 (center), 180 (back)	300 (center), 180 (back)
	Max. swing dia. over slide	mm 610	610	610	610	610
Spindle	Spindle bore	mm 60	80	80	80	80
	Bore dia. capacity	mm 810	840	840	840	840
	Spindle nose	mm 840 1.4	840 1.4	840 1.4	840 1.4	840 1.4
	Spindle speed	rpm 3000	3000	3000	3000	3000
Axis	Max motor power	kW 3.5	3.5	3.5	3.5	3.5
	Z axis travel	mm 200	200	200	200	200
Tool post	Z axis travel	mm 270	300	300	300	300
	C/D rapid traverse	mm/min 0.0	0.0	0.0	0.0	0.0
Structure	Type of bedstock	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"	4 station toolpost, "Gang type"
	No. of tool stations	mm 4	4	4	4	4
	Tool change time	mm 10-15	10-15	10-15	10-15	10-15
	Tool width	mm 200	200	200	200	200
Others	Power capacity	mm 3	3	3	3	3
	Overall dimension (LxWxD)	mm 1400x1200x1480	1400x1200x1480	1400x1200x1480	1400x1200x1480	1400x1200x1480
	Weight (calculated)	kg 1100	1100	1100	1100	1100

Note: "" means optional

LIVE TOOLING & MULTI-TASKING MACHINE

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 size	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.



Precision-machined drive toolholder
 Side and back clamping drive toolholder
 Back and side clamping drive toolholder
 Double-flang drive toolholder
 Double-flang drive toolholder
 1/2-flang drive toolholder
 ER20 flange drive toolholder
 Group 1 double-flang drive toolholder
 Group 1 flange and 1/2-flange drive toolholder
 Group 1 flange and 1/2-flange drive toolholder
 Taper-flang drive 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.



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.

Tooling Options

Option # Tooling Included

1. Gang Tools
2. Gang Tools + (2) (R25) Axial Live Tools
3. Gang Tools + (5) (R25) Axial Live Tools
4. Gang Tools + (2) (R25) Radial Live Tools w/ Y Axis
5. Gang Tools + (2) (R25) Axial Live Tools & (2) (R25) Radial Live Tools w/ Y Axis
6. 8 Station Turned + (2) (R25) Axial Live Tools
7. 8 Station Turned + (5) (R25) Axial Live Tools
8. 8 Station Turned + (2) (R25) Axial Live Tools w/ Y Axis
9. 8 Station Turned + (2) (R25) Axial & (2) (R25) Radial w/ Y Axis
10. 8 Station Turned + (2) (R25) Axial and (2) (R25) Radial Live Tools on Single Motor Drive Y Axis (Std)
11. 8 Station Turned + (5) (R25) Axial and (5) Radial Live Tools on Single Motor Drive Y Axis (Std)



SL580-MT



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.
- Capability of C axis and 4 axis simultaneous machining.
- Modular design with many available configurations – such as tool stock and tooling combinations.



Specifications

	Unit	SL580-MG	SL580-MT	TMC400Y	TMC400V			
Structure	Bed machine height	41'	41'	37'	36'			
	Tooling table	1,700mm (66.9")	1,700mm (66.9")	1,700mm (66.9")	1,700mm (66.9")			
	Chuck Center	8" Hydraulic Chuck Hydraulic collet	8" Hydraulic Chuck Hydraulic collet	8" Hydraulic Chuck Hydraulic collet	Hydraulic Collet, "C", "P"			
Capacity	Max. swing (to over bed)	mm 4,000	4,000	4,000	4,000			
	Max. length of workpiece	mm Chuck 200, *Cater 320	Chuck 200, *Cater 320	200	200			
	Max. swing (to tool stock)	mm 800	800	800	800			
Spindle	Spindle type	A2-B	A2-B	A2-B	*A2-B	A2-B	*A2-B	*A2-B
	Spindle bore	mm 84.8	84.8	84.8	*84.8	84.8	*84.8	*84.8
	Max. dia. of through hole	mm 84.8	84.8	84.8	*84.8	84.8	*84.8	*84.8
	Spindle speed	rpm 3000, *14000	3000, *14000	3000, *14000	3000, *14000	3000, *14000	3000, *14000	3000, *14000
	Max. motor power	kw 3.5/17.5	3.5/17.5	3.5/17.5	3.5/17.5	3.5/17.5	3.5/17.5	3.5/17.5
Axis	X axis travel	mm 580	500	400	320			
	Z axis travel	mm 320	300	300	320			
	Y axis travel	mm 100	100	80	80			
Toolpost	A-2 Y rigid toolpost	mm 20,20,16	20,20,16	1,12,12	1,12,12			
	Toolpost type	Gang type tool post (std) with toolholders	G. Station tool post (std) with toolholders	Gang type tool post (std) with toolholders	Gang type tool post (std) with toolholders			
Tailstock	Taper of tailstock	No	No	No	Ø74			
	Taper of tailstock quill	No	No	No	100			
Others	Power capacity	kw 15	15	14	14/12/4			
	Overall dimensions, width	mm 2500*1600*1800	2500*1600*1800	2000*1600*1800	2000*1600*1800			
	Weight (approx)	kg 3600	3600	2600	2600			

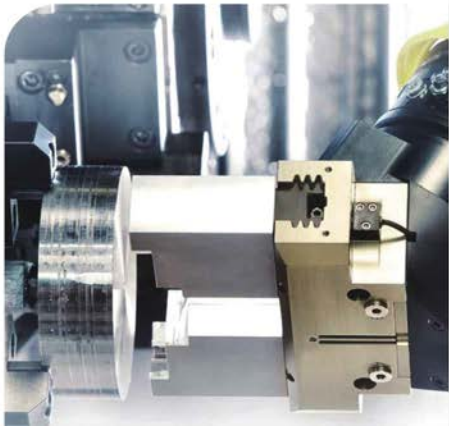
Note: * ** means optional. "N/A" means not available.

AUTOMATION & PRODUCTION LINE

Machine With Robot

From the set-up of raw materials to the removal of finished workpieces all on one machine, Z-MaT has smart solutions for complete automation. Reduce labor costs and the time between cuts by using loaders, unloaders, and bar feeders to ensure the greatest profit in production.

With a combination of different tooling and workholding solutions, this series offers great flexibility for many usage scenarios.



GANTRY LOAD AUTOMATION

All Z-MaT machines are designed to allow the working area to be loaded efficiently from the front and from the top. Since the gantry loading equipment was developed and manufactured by Z-MaT, optimum matching of the individual components is guaranteed. The newly developed loading portal is characterized by very high acceleration rates and velocities as well as very high positioning accuracy and is suitable for loading workpieces of different dimensions. Together with a wide range of CNC machines, our engineering talents are capable to supply complete automatic production line turnkey solutions.



Procedures of Automation Solution

1. Sales representatives confirm the demand of reducing labors for mass production parts.
2. Discuss all the details with Z-MaT engineers.
3. Find the most reliable way to realize the production target.
4. Gantry loading equipment was developed and manufactured by Z-MaT with world class functioning parts, matching the individual components, stability and after sales service are all guaranteed.



Different Grippers



6-station Turret with Gang Tooling



Work Feeder Station



Gang Tooling with Live Tooling

CNC MACHINE -R SERIES

AUTOMATION WITH GANTRY ROBOT

Standard Features

- 8-Station Turret (3.6-R)
- Gang Type (FL300-R)
- Automatic Air Blow
- Hydraulic 3-Jaw Chuck 6"
- SINUMATIC Robot Controller
- Factory Integrated Gantry
- Turned Head Robot Chuck
- Dust Matrix Feeder Station

Optional Features

- Tool Setter
- Live Tooling
- Different Turret
- Dust Mist Collector
- Automatic Chip Conveyor
- Customized Automatic Gripper
- Different Spindle Bore Diameters
- Customized Work Feeder Station



Machine Characteristics

- SL6-R and FL300-R are integrated with Gantry Robot as a unit, designed with a compact size it can be placed in a standard container which can reduce installation and freight costs (height, meanwhile the long distance transportation damage risk is minimized).
- Most Z-Mat CNC machine have standard solutions with Z-Mat self made Gantry Robot such as Star SL6, Star SL6, TMS20-S, ST18-L/FL300, 3044C, etc.
- Resistor loading weight is available as option.
- Steel frame and aluminum alloy V4 columns are the quality foundation.



We only list two models as referenced below,
Numerous other models are available
With gantry robot solutions.



Specifications

	Unit	SL6-R			FL300-R		
Capacity	Chuck Center	mm	Hydraulic center		Hydraulic chuck 6"		
	Max. Length of Workpiece	mm	80		80		
	Max. Swing Dia. over Bed	mm	Ø400		Ø300		
	Max. Swing Dia. over Slide	mm	Ø210		Ø150		
Spindle	Spindle Bore	mm	Ø45	Ø50	Ø40	Ø45	Ø42
	Max. Dia. of Through-Hole	mm	Ø40	Ø40	Ø40	Ø40	Ø32
	Spindle Nose	Type	A2-S	A2-S	A2-S	A2-S	A2-S
	Max. Spindle Speed	rpm	3000	3000	3000	2400	2000
Max. Motor Power	kw	1500	1500	1500	1000	1000	
	kw	0.5/1.5	0.5/1.5	0.5/1.5			
Axis	X-Axis Travel	mm	200		300		
	Z-Axis Travel	mm	200/100		300		
	A/B Axis Repeat Precision	mm	±0.01		±0.01		
	Max. Feed Speed	m/min	6		6		
Turret	No. of Tool Stations	mm	6 / 12		6 / 6		
	Tool Shank Size	mm	Ø1 x 20, 16 x 16		Ø1 x 20		
Gantry Robot	Controller	-	SINUMATIC		SINUMATIC		
	Lift Capacity	kg	0		0		
	Workpiece Capacity	kg	1, 1.5		1, 1.5		
	Rapid Traverse	m/min	60		60		
	Transmission Type	-	Gear Type		Gear Type		
	Positioning	-	Linear guideways		Linear guideways		
Others	Responsibility Protection	mm	±0.01		±0.01		
	Power Capacity	kVA	10		10		
	Overall Dimensions (L*W*H)	mm	2010 x 1750 x 2100		3010 x 1750 x 2400		
	Weight (net)	kg	2000		2000		

NOTE: (---) means optional.

VERTICAL CNC LATHE

Excellent option for large, heavy, thin-walled or complicated parts



Advantages of the VT Series
Compared to a Horizontal CNC Lathe:

VT Series Advantage

	YES
Smallest floor space – required footprint?	✓ Footprint 50% Smaller
Easiest parts loading and unloading?	✓ Requires 50% Less Set-up
Best parts machining roundness results?	✓ No deflection from gravity
Strongest foundation for heavy cutting?	✓ Twice the weight, power to rigid
Best for turning complicated parts?	✓ Simpler clamping process



Outstanding Efficiency & Accuracy

Machine Characteristics

- Standard 3-Station Turret – stands up to versatile production requirements.
- Compact design, PLUS, square base casting minimizes floor space requirements and increases anti-vibration forces.
- High speed spindle unit with powerful servo drive motor – offers high speed finish cutting, AND low speed heavy duty cutting in the same compact machine.



Specifications

	Unit	VT400	VT600	
Capacity	Max. turning dia.	mm	4000	4750
	Max. turning dia.	mm	4400	4600
	Max. cutting height	mm	420	400
Chuck	Chuck type		Hydraulic Chuck	Hydraulic Chuck
	Chuck size	mm	12"	11" x 10"
Spindle	Spindle speed	rpm	2300	1000, "Clear Box"
	Main motor power	kw	19.14	19.14, 11.8 & 7.2
	Spindle nose	mm	A2-B	A2-B
Turret	Turret center height	mm	125	100
	No. of tools	mm	8 stations	8 stations
	Turret diameter	mm	324.52	404.62
Axis	X/Z axis travel	mm	300 x 300 - 300 x 400	400 x 400 - 400 x 500
	X/Z axis rigid traverse	kg/mm	10/18	10/18
	Positioning X/Z	mm	0.014/0.018	0.014/0.018
Accuracy	Repeatability X/Z	mm	0.004/0.004	0.004/0.004
	Welding	mm	176	176
Others	Power consumption	kVA	32	32
	Dimension (L x W x H)	mm	1950 x 1700 x 2000	2300 x 2000 x 2400
	Weight (about)	kg	7000	11000

Note: *Values are optional.



TOOL ROOM CNC MACHINES

"Fit Through a Door" CNC Lathes

Innovative, Heavy Cast Base – With Narrow Footprint



Perfect for getting through narrow halls and into small spaces. Up and into skyscrapers or down to a basement laboratory – or, maybe even into your garage.



820mm

Specifications	Unit	LTFS	LTSS
Chuck/Chuck	N/A	8" Manual Chuck	6" Manual Chuck, Hydraulic Chuck
Max. swing dia. over bed	mm	8250	8200
Max. swing dia. over spindle	mm	300	Turret 220, Gang type tool 300
Max. swing dia. over slide	mm	8140	8130
Spindle type	N/A	A2-4	A2-4
Spindle bore	mm	830	830
Spindle speed	rpm	3000	3000
Main motor power	kW	3.7	3.7
A/C servo motor	mm	1400/200	200/200
A/C servomotor	mm	612	610
Turret type	N/A	Quick change	Gang type tool, "Quick change" toolpost, "B" station turret
Feedstock type	N/A	Manual, Hydraulic	Manual, Hydraulic
Type of feedstock	N/A	W7.5	W7.5
Travel of feedstock unit	mm	80	80
Overall dimension (L x W x H)	mm	1400x200 x 1800	1300x200 x 1650
Weight (net/total)	kg	1200	1400

Note: *** means optional.

Tool Room Functionality

These versatile, universal use machines were designed for customers around the world who need machines for general use – or small space production. With their compact design and "easy-to-use" functionality these accurate but heavy-duty small-sized production quality machines will fit a wide range of applications – from tool room settings, to lab room R & D, small shop production or personal use in the family garage.



Full guarded type

Specifications	Unit	ZM400
Table size	mm	1000x250
T-plate (optional, 4-hole)	mm	140x100
Max. load	kg	250
A/T/Z axis travel	mm	400/200/200
A/T/Z axis rapid traverse	mm/min	60/30
Spindle nose to table	mm	210
Spindle nose to column	mm	275
Guideway type	N/A	Box, A/T/Z
Spindle type	N/A	B730
Main servo motor	kW	2.2
Spindle speed	rpm	100-3000
Overall dimension (L x W x H)	mm	1000x1500x2000
Weight (net/total)	kg	1700



Semi-guarded type



Specifications	Unit	VMC550E
Table size	mm	800x300
T-plate (optional, 4-hole)	mm	140x80
Max. load	kg	300
A/T/Z axis travel	mm	500/200/100
A/T/Z axis rapid traverse	mm/min	20/20/10
Spindle nose to table	mm	50-300
Spindle nose to column	mm	300
Guideway type	N/A	LM, A/T/Z
Spindle type	N/A	B730
Main servo motor	kW	3.7/3.0
Spindle speed	rpm	8000
*ATC capacity/type	No. type	12/1 (optional)
Max. weight of tool	kg	0
Overall dimension (L x W x H)	mm	2200x2000x2200
Weight (net/total)	kg	2800

Note: *** means optional, "LM" means linear motion guide way.

SPM SERIES

Special Purpose Machine

Increasing Productivity – Beyond Expectations

Because your efficiency and profitability are at the core of our mission, 24hr does not limit our engineering innovation to just general use CNC lathes and mills. We also design and produce special purpose machines to meet specific needs that come to us from our diverse customer base.



SPHERICAL CUTTING CNC LATHE

The **Q50** is a special design for machining ball-shaped parts. Turning, indexing and finish polishing can be accomplished in a single parts machining cycle.

Machine Description

Traditional spherical cutting CNC lathes used a traditional technology that featured a straight rack drive and hydraulic system. The result was that tolerances were difficult to maintain and surface finishes were not smooth.

The Q50 uses a modular rack and pinion combination, along with a servo motor to control table movement. The improved results include machining results that match programming specifications and superior surface finishes.

Machine Features

- Mono-block single piece cast base and lathe bed. Extra-heavy casting is stabilized using traditional weather aging (an expensive and time consuming process). This helps to optimize lathe bed stability and accuracy.
- High precision, world-class linear motion bearing guideways increase machine accuracy and stability over the life of the machine.
- Center-mounted, high precision ball screw has optimal dynamic motion stability and efficiency.
- Accurate, high-speed cartridge spindle best fits the needs of the application – extra-fine finishes and optimal finish part roundness.
- Three axis simultaneous movement system maximizes flexibility of parts accuracy to part design when cutting round or three dimensional shapes.



Specifications Unit Q50

Chuck/Center	N/A	Hydraulic center
Max. spherical turning dia.	mm	630
X/Z axis travel	mm	200/150
X/Z rapid traverse	m/min	9/9
Spindle nose	mm	A2-5
Spindle speed	rpm	4000
Main motor power	kW	3.0 / 4.0
Turret type	N/A	Double turret & Hyd. 3rd
Overall dimensions(LxWxH)	mm	1900x1210x1600
Weight(about)	kg	1900



A DIFFERENT SOLUTION

The Power AB Lathe w/ Rotary Table

Besides the Q50 spherical lathe, another option for accurately machining spherical shapes is our highly accurate Power AB lathe matched with a precision rotary table with servo drive. See this setup on the photo below.



SPM SERIES Special Purpose Machine

Big Head – CK62110 CNC Lathe

The large swing radius on the CK62110 lathe provides an efficient option for turning rocker arms, or other long, narrow diameter parts.



Specifications

Gap-Bed Lathe	Unit	CK62110
Chuck	inch	Max. 12", 12", 12"
Max. swing dia. in the gap	mm	Φ1100
Max. swing dia. over bed	mm	Φ400
Max. length in the gap	mm	200
Max. length of workpiece	mm	400
Spindle bore	mm	Φ50, 60, 70, 80
Spindle speed	rpm	1400, 1800
Main motor power	kW	5.5, 7.5
GZ axis travel	mm	220/400
GZ rapid traverse	m/min	6/6
Turret type		4 station turret
Outfeed type		Hard
Overall dimensions(L*W*H)	mm	2100x1300x1800
Weight(about)	kg	2200

Note: "" means optional.

Multi-tool FL300-MT



FL300-MT



Specifications

Capacity	Unit	FL300-MT
Chuck type	type	Hydraulic collet
Bed taper guide		Fixed
Max. swing dia. over bed	mm	Φ300
Max. length of workpiece	mm	500
Max. swing dia. over slide	mm	Φ120
Spindle bore	mm	Φ40, 40, 40
Max. dia. of through hole	mm	Φ40, 40, 40
Spindle bore		A2-B, A2-B
Spindle speed	rpm	2000, 2200
Spindle motor power	kW	3.7/5.5, 5.5/7.5
GZ travel	mm	200/200
GZ rapid traverse	m/min	12/12
Toolpost type		Swing type
Type		4 station toolpost
No. of tool stations	no.	4-10
GZ rapid	mm	80/80
GZ rapid traverse	m/min	15
Toolpost type		Swing type
No. of sub-tools	no.	2
Sub-tool diameter	mm	Φ10mm
Power capacity	kVA	9
Dimensions (L*W*H)	mm	1700x1200x1800
Weight(about)	kg	1800

Note: "" means optional, "N/A" means not available, "L,M" means linear motion guide way



Dual End Milling And Drilling Machine STK Series

The dual end turning machine was developed specifically for the auto industry, and can be applied to other applications. This machine allows for double end cutting of parts that require machining on multiple surfaces of the part. Configurations of two to eight spindles can be configured for differing part turning requirements.



STK Series



Specifications

Capacity	Unit	STK50
Machining Dia. Range	mm	Φ20-70
Machining length Range	mm	200-250
Size of Clamping	mm	WE 9-4.3
Max. Milling Depth (over Bed)	mm	2
Spindle bore	mm	Φ20-200
Spindle Motor	kW	3.0/7.5
Spindle bore	Type	BT50
Turning Tool		Special Toolholder
Center Cutter		Milling Cutter
GZ travel	mm	200/200/240
GZ rapid traverse	m/min	12
Structure		Double V support self-anchoring
Clamping		High-Rise
Clamping force	KN	15
Bed degree	mm	20°
Machine weight (about)	kg	2000

SPM SERIES Special Purpose Machine



SPM DK6163-F For Steering Rod



Two Directional Center Spindle Machine



Mirror Structure CNC lathe S-CK350



Car Wheel Repairing Machine FL630



Multistation Drilling Machine



Crankshaft Drilling Machine

SOCIAL RESPONSIBILITY

Z-MaT has expanded relationships with educational institutions and community organizations. We have encouraged public discussion about how to develop coordinated plans for addressing the shortage of trained CNC technicians.

A need was expressed for a low-cost training "work-seat" package that schools and companies can use to provide practical training for CNC control operations. The Z-MaT CNC Control Simulator was developed to address this need.



Z-MaT CNC Trainer

It's Like on the Job Training!



- Closed system
- ISO Standard
- Built-In, Dedicated Keypad
- One-Button Features
- Multi-Function Jog Handle
- Color LCD Screen
- USB Port

Industry Standard CNC Control Program with Operator Station

Capable of 3D Simulation



Industry Standard Hardware & Software



Seamless shift from CNC trainer to real world machine operation



PROFESSIONAL MANUFACTURER – BROAD PRODUCT LINE

Wide Product Line

Z-MaT is one of the few world-wide turning center manufacturers that can claim almost two dozen unique series of lathes with over 200 machine models.

Each machine series was designed to meet a specific target application. Individual machine models have their unique outstanding features that can be applied to the specific needs of individual customers.



Hand Scraping

Special Hand Scraping at Z-MaT machines to address state-of-the-art processes. Every Z-MaT machine comes with hand scraping access by skilled technicians, meeting perfect finishing requirements and dimensional accuracy for all customer end uses.

Total Quality Management

No matter how far technology may evolve, the one ongoing concern of CNC customers is, "Will the machine make my parts, with higher productivity and without a hassle. And at a price I can justify?" Customers desire our best effort towards 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.



Always Innovating & Providing Solutions

The ultimate goal for Z-MaT is to become your Smart CNC Solution provider. We believe continual innovation is the key to accomplishing this goal. Here are a few things we do to increase innovation:

- Every year we invest large amounts of capital in the development of new models of CNC lathes and mills.
- Our advanced applications for live tooling technology provide industry leading capabilities in custom designs and applications for secondary machining operations.
- We are applying world-class quality control standards to our complete manufacturing process.
- Our technicians are recognized by the industry for skill, professional service.
- Our goal is to always get better.
- An entrepreneurial attitude and positive approach to innovation has brought us to the fore front of CNC machine tool design and sales. We will continue to innovate.

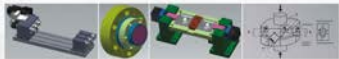
Innovation has been a key to our success and we continue to build a culture where ideas are important. Our goal is to practice continual learning, both in terms of technical and professional knowledge and capability. Tell us how we can do better - We're listening.

High Value Human Resources

A key Z-MaT competitive advantage is the quality of our people, and our team approach to delivery of the best possible results. Each member of our team has training and proven expertise, as well as a positive, cheerful, can-do approach to supporting our customers.

Z-MaT supports each team member with training and advanced technology-enabled processes for accomplishing day-to-day tasks. Z-MaT has also created a work environment characterized by mutual trust, recognition for a job well done, and opportunities for personal and professional growth. Z-MaT works hard to combine individual and combined strengths to generate tangible positive results that exceed customer expectations.

Examples of Fixtures



Bar Feeders



Workpiece Samples

Provider of Precision CNC Machines
And Smart CNC Solutions
For The Metal Cutting Industry



SIEMENS  PRAGATI  Rexroth
Berth Group

 Schneider Electric  POSMA  CHANDOX

 CENTROID  FANUC  YASKAWA  FAG

NSK  PMI  THK  HIWIN  NACHI

 KNO  LAF 

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.

INDUSTRY LEADING SERVICE NETWORK



The Pursuit Of The Fastest Response Is Our Promise

"Responding within 24 Hours" is our commitment to client service standards, the cornerstone of service philosophy and a key to our success. We track our service response patterns and apply scientific process. One of the commitments we promise to our customers is to make sure we keep improving.

We know that technical service is important – as important as the physical machine. Our technicians are here to help provide you the most efficient machine process – this includes help in determining optimal cycle time and optimizing machine maintenance. Most of Z-MaT's valuable services are provided free of charge.



The Z-MaT International Warranty – 18 Months

Demonstrates our confidence in the quality of our product, and brings peace of mind to our customers.

We will supply a replacement for parts that prove to be defective for a period of 18 months, starting on the machine's bill of lading date. Extended warranty is available at the time of purchase. Please contact your Z-MaT sales representative for details.



Service Center



Our service and sales team are well trained to use English, materials are also updated to international languages, which is critical capability to supply timely service and avoid loss by misunderstandings. In order to resume the normal operation of customers' machines as quickly as possible, we work to resolve problems, speedily by the ways (conference app, WhatsApp, telephone and Email) which customer is convenient, if necessary by dispatching well trained experienced staff from the worldwide technical centers for repairs, or supplying parts from the parts stocks.

Parts Center



We will supply a replacement for parts that prove to be defective for a period of warranty. We build abundant stocks and track our service response patterns. 85% spare parts can be shipped out by air-courier within 1 day after receiving the request from customer.

Pre-Sale Service



To select the most suitable machine with the right configuration and optimized solutions is the first most important step of everything. Machine tools are products that run continuously for many years. This means that machine tools manufacturers have to build very close partnerships with their customers, think so that in any other industries. Integrated with 30 years' experience in auto parts, medical mold and machine tools industries, our application engineers come up with the optimum proposals based on their requirements in regard to machining. Supporting the customer's production activities with greater speed and reliability, as well as cost-reduction requirement for improving Z-MaT's client competitive advantage.



Z-MaT Fast Facts:

- ✦ 87%+ Client Retention Rate
- ✦ 15,000+ Corporate Clients
- ✦ In business for more than 32 years.
- ✦ 100% focus on our clients best interests

China

- Direct service in China
- Technical Centers
- Headquarter Plant
- Subsidiaries

Overseas countries

- Head office
- Subsidiaries
- Overseas selling or planned service center