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The explanation, diagram and technical parameter are varying with continuous technology development without further notice. (20140212-FT14-0055)

圖文資料：中國時代國際集團有限公司 電話：400-001-3098



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# TC<sup>R</sup>

## HIGH-SPEED DRILLING & TAPPING CENTER

SHENYANG MACHINE TOOL CO., LTD.



## TC<sup>R</sup> HIGH-SPEED DRILLING & TAPPING CENTER

### 700 Hours Continuous Operation Prompt Service, Always Ready

- Processing efficiency is 2x that of a traditional carving and milling machine
- Surface accuracy can reach 0.2~0.3Ra
- More than 96 out of 100 products are qualified
- Professional design, small footprint, easy maintenance



Fields



FANUC Oi Mate MD	10000rpm	1.2/1.2/1.8 KW (Spindle power 5.5/7.5 KW Max torque 26.3 NM)
FANUC Oi MD	20000rpm	2.5/2.5/2.5 KW
SIEMENS 828D	20000rpm	2.29/2.29/3.3KW (1.8-3.3KW)
SIEMENS 828D	24000rpm	2.29/2.29/3.3KW

### Comparison of machining efficiency

Typical	271s
TC500R	135s

efficiency doubled

### Main machining work

- Ø10 Vertical Milling Head Polished Surface 8"
- Ø4.8 Drilling Hole Drill Small Hole 4"
- Ø5 Vertical Milling Tool  $\left\{ \begin{array}{l} \text{Enlarging the} \\ \text{hole, precision} \\ \text{milling, large} \\ \text{hole in the side} \\ \text{wall} \end{array} \right\}$  10"
- Ø2R1 Ball Turning Tools Rounding Precision Milling Surfaces 113"

Machine more efficiently, more accurately, and more smoothly today.

### Siemens 828D MAIN SPECIFICATIONS

Item	Unit	TC500R
CNC system		Siemens 828D
Worktable		
Dimensions	mm	650×400
Max Load	kg	250
T-slot Size	mm	3×14×125
Machining Range		
X/Y/Z Axis Travel	mm	500/400/400
Max Distance from Spindle Nose	mm	550
Min Distance from Spindle Nose	mm	150
Spindle		
Speed	rpm	Direct10-24000
Taper		BT30
Motor Power	KW	8
Feed		
X/Y/Z Rapid Traverse	m/min	48/48/48
Feed Speed	m/min	30
X/Y/Z Motor Power	KW	2.29/2.29/3.3
X/Y/Z Torque	NM	7.3/7.3/10.5
X/Y/Z Acceleration	G	1/1/1
Tool Magazine		
Type		Turret-type(servo)
Quantity	number	20
Change Time	s	1.0
Positioning Accuracy	mm	JS86336-4:2010 GB/T184004-2010
Repeatability	mm	0.010
Dimensions & Weight		
Footprint (L×W)	mm	2150×1750
Weight	kg	2200
Capacity	KVA	18
Air source	Mpa	0.5-0.7

### FANUC Oi Mate MD MAIN SPECIFICATIONS

Item	Unit	TC500R
CNC system		FANUC Oi Mate MD
Worktable		
Dimensions	mm	650×400
Max Load	kg	250
T-slot Size	mm	3×14×125
Machining Range		
X/Y/Z Axis Travel	mm	500/400/300
Max Distance from Spindle Nose	mm	450
Min Distance from Spindle Nose	mm	150
Spindle		
Speed	rpm	Direct10-10000
Taper		BT30
Motor Power	KW	3.7
Feed		
X/Y/Z Rapid Traverse	m/min	48/48/48
Feed Speed	m/min	30
X/Y/Z Motor Power	KW	1.2/1.2/1.8
X/Y/Z Torque	NM	7/7/11
X/Y/Z Acceleration	G	1/1/1
Tool Magazine		
Type		Turret-type(servo)
Quantity	number	14
Change Time	s	1.4
Positioning Accuracy	mm	JS86336-4:2010 GB/T184004-2010
Repeatability	mm	0.008
Dimensions & Weight		
Footprint (L×W)	mm	2150×1750
Weight	kg	2200
Capacity	KVA	18
Air source	Mpa	0.5-0.7

### High Precision Direct-Connect Spindle




Going from 0 to 18,000RPM in 1.2s, this low vibration, low noise, low temperature spindle will extend the life of your cutting tools. The workpiece is clamp one-time for multi-surface machining (5-axis, 4-linkage).

### Turret-type Servo Tool Magazine

This efficient and reliable tool changer uses dual-supporting roller mechanisms for un/clamping. Standard capacity is 14 tools and can be expanded up to 21. A disc-type tool magazine with 0.9s change time is available as well.

### Other Structural Upgrades

Standard Fast Traverse of 48m/min, 60m/min max  
1G Max Acceleration  
Independent Telescopic Cover  
Z-axis Motor Max Power 3.3KW

Machining Type		Drilling		Tapping		Milling
						
		Tool Diameter(mm) × Feed(mm/rev)		Tool Diameter(mm) × Screw Pitch(mm)		Cut Depth(cm3/min) : Cutting Width (mm) × Depth(mm) × Feed Speed(mm/min)
		max	min	max	min	
Material	Aluminum	Ø25×0.2	Ø1×0.04	M18×2.5	M1.2×0.25	286: 40×3.5×2040
	Cast Iron	Ø24×0.15	Ø12×0.03	M14×2	M2×0.4	67: 40×3.0×560
	Steel	Ø22×0.1	Ø16×0.02	M12×1.75	M3×0.5	48: 40×2.5×480
Machining Efficiency		23.3°/30hole (Ø6.7Depth16mm)		24.5°/30Thread (M8×P1.25Depth16mm)		Rough Machining Cut Depth1200cm³/min Material: A2017