VMC	Vertical Machining Center
RODUCT LINES	Figh Precision High Performance Die Mold Vertical Machining Center /High Precision Graphite Vertical Machining Center FP55LX, FP66A, FP100A / FP66G NXV Series High Performance Vertical Machining Center NXV560A, NXV1020A/AM, NXV1380A, NXV1680A/B TV Series Heavy Duty Vertical Machining Center TV16B, TV146B, TV158B, TV188B, TV2110B, TV2610B, TV850B NTV Series High Efficiency T-base Vertical Machining Center NTV158A/B
PR	NMV Serfies High Performance High Rigidity Vertical Machining Center NMV76A NMV106 A WV Serfies Ultra Wide High Performance Vertical Machining Center WV108A/B
	NFX Series High Performance 5-axis Vertical Machining Center
	NSV Series Ultra High Performance Vertical Machining Center NSV66A, NSV102A, NSV102AM, NSV156A
	TCV Series High Performance Traveling Column Vertical Machining Center TCV2000A, TCV3000A, TCV3000A-5AF, TCV3000A-5AX DCV Series Advanced Double Column Vertical Machining Center
	DCV2012A/B, DCV3016B~6035B, DCV2018A-5AX, DCV4030B~6030B-5AX, DCV4030B-5AF NDC Sariles High Performance Double Column Vertical Machining Center NDC2016B~4016B, NDC3022B~6027B, NDC2018B~4018B-AHC, NDC3022B~6027B-AHC
НМС	Horizontal Machining Center
	H Series High Production Horizontal Machining Center H2612 B NH Series High Speed High Precision Horizontal Machining Center NH450A, NH630B, NH800B
НВМ	Horizontal Boring Milling Machining Center
	BMP Series High Accuracy Heavy Duty Boring Machine BMP1416B
CNC LATHES	CNC Turning Center
	NT Series High Performance Mill/Turn Center NT-2000Y/SY, NT-2500Y/SY, NT-2000SY2
	GT Series High Performance Geo Turning Center GT-200A/B/MA, GT-250A/B/MA/MB, GT-300A/B/LA/LB/MA/MB/LMA/LMB, GT-380A/B/LA/LB TC Series High Performance High Precision CNC Lathe
	TC-16A/B/LA/LB/MA/MB/LMA/LMB, TC-26, TC-26L, TC-36, TC-36W, TC-46, TC-46M
INTEGRATION AND SOLUTIONS	Integrated Operation Control System COPERATION Control System COPERATION Control System COPERATION Control System Coperation System Coperation Solutions



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HIGH PERFORMANCE HIGH PRECISION CNC LATHE





Series High Performance High Precision CNC Lathe

YCM TC series is the utmost performance CNC lathe which provides the best solution in various complex machining. With numerous outstanding features, the TC series is suited for mass turning production, such as automotive, aerospace, oil, and IT electronic industries.

- Modular spindle design is for various turning applications.
- The rigid one-piece MEEHANITE[®] castings absorb the turning vibration and ensure job accuracy.
- The fast and reliable servo driven turret features fast indexing for high production.
- High speed axial traverse design achieves precise positioning which enlarges the benefit of operation.
- **The user-friendly interface provides the users a easy way to operate and maintain.**
- The full enclosure safely guards the operator, conforms current environmental safety regulations.



YCM Sophisticated Scraper Work Skill

Scraper Work Skill is viewed as one of the core skills in machine tool industry. Making a perfect surface is the foundation of flawless accuracy and YCM utilizes this hand-made skill to achieve it.

To keep the sophisticated scraper work skill, YCM has created a series of training programs for her employees. YCM seriously demands that all of her technicians are capable of making a perfect surface with 20 spot per square inch, 40% contact rate.

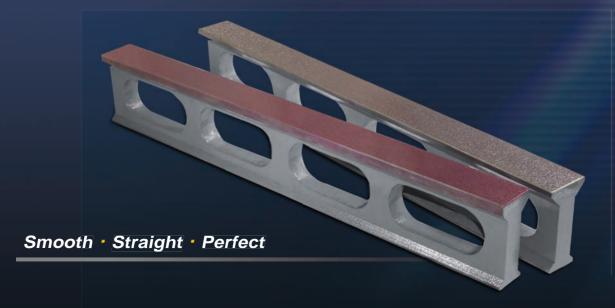
Making a perfect surface is the foundation for the achievement of geometrical accuracy.



How to make a perfect surface:

We need three flat blocks first and then test each surface by touching it with other surfaces. Scrape the bumpy points on the surface until every surface is 100% touching with each other.





<u>-26/26</u>



- Max. Spindle Speed: 4,000rpm
- X/Z Rapid Feedrate: 15/20 m/min. 591/787ipm
- Extremely Rigid One-piece 45° Slanted Bed Design
- Powerful Gearhead Spindle with Max. Torque Output at 74.5kgf-m 539 lb-ft.
- Material Removal Efficiency: 410cm³/min. Insert Depth: 8mm 0.31"

High Speed High Rigidity Turret

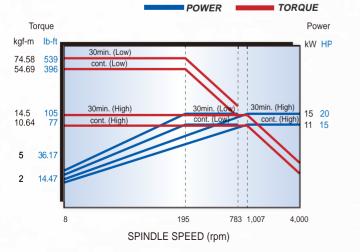
- The 12-station turret index is done by absolute detection to reduce tool selection mistake.
- The powerful turret with large diameter curvic coupling offers high precision and high rigidity in cutting performance.

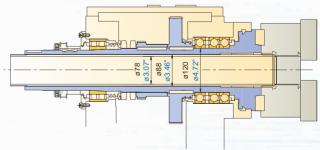
Powerful Headstock With Built-in Gears

- The spindle is equipped with high precision angular ball bearing and NN series bearing that provides high precision and rigidity working condition.
- The inner diameter of the bearing is ø120mm ø4.72", and ø88mm ø3.46" of the spindle through hole. ø78mm ø3.07" of the drawbar through hole adapts large diameter bar stock jobs.
- The powerful spindle with built-in gears provides various speed transmissions. The max. output of torque reaches 74.5kgf-m 539 lb-ft, with 4,000rpm max. spindle speed.









Spindle Power-Torque Output Chart

High Precision and High Rigidity Programmable Tailstock

Using "M" code commands the guill stroke of the programmable tailstock can be hooked with a hydraulic hook to the saddle carriage and slide along the Z-axis stroke.

High Speed Ultra Smooth Axial Movement

X/Z-axis guideways are well hardened and ground with Turcite-B to reduce the friction and offer utmost rigidity in cutting. The rapid feedrate of X/Z-axis is 15/20 m/min. 591/787ipm

User-friendly Operation and Easy Maintenance

Hydraulic gauges, control values of chuck and tail stock, and the central lubrication system are installed at the front side; for easy adjustment and maintenance.

Directly Driven Ballscrews Of High Precision And Rigidity

This machine is equipped with high precision ball screws and connected with motor directly. The fixing design supports both ends; the design of pre-tensioned ball screws provides high rigidity, high precision, and low heat effect.

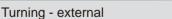
Central Lubrication System

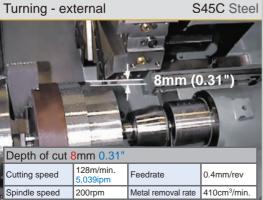
- The machine with auto-lubrication design ensures the accuracy throughout its life time.
- The slide ways of X/Z-axis and ball screws are lubricated. Built-in alarm will occurred when the lubrication oil is insufficient.













TC-26/26L 4,000rpm



-36///36



High Speed High Rigidity Turret

Turning - external

Depth of cut 8mm 0.31

Cutting speed

Spindle speed

128m/min.

5,0<mark>39ipm</mark>

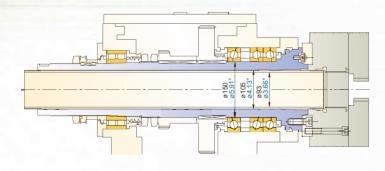
200rpm

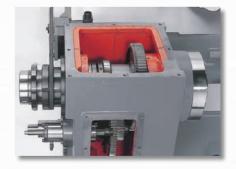
Feedrate

- The 12-station turret index is done by absolute detection, and no tool selection mistake is caused.
- The powerful turret of large diameter curvic coupling offers high precision and high rigidity in cutting performance.

Powerful Headstock With Built-in Gears

- The spindle is equipped with high precision angular ball bearing and NN series bearing witch provides high precision and rigidity working condition.
- The inner diameter of the bearing is ø150mm ø5.91", and ø105mm ø4.13" of the spindle through hole. ø93mm ø3.66" of the drawbar through hole adapts large diameter bar stock jobs.
- The powerful spindle with built-in gears provides various speed transmissions. The max. output of torque reaches 140kgf-m 1,013 lb-ft, with max. spindle speed of 2,500rpm.

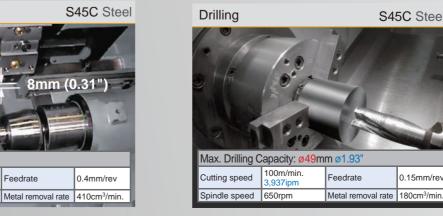




TC-36W/36 2,500rpm

S45C Steel

0.15mm/rev





Extremely Rigid One-piece 45° Slanted Bed Endures Max. Cutting Force, with Easy

Powerful Gearhand Spindle with Max. Torque Output at 140kgf-m 1,013 lb-ft, and

Power Outputs at 26kW 35HP.

Operation.

Directly Driven Ballscrews Provides High Precision and Rigidity

This machine is equipped with high precision ball screws and connected with motor directly. The fixing design supports both ends; the design of pre-tensioned ball screws provides high rigidity, high precision, and low heat effect.

The Stand Alone Oil Tank Reduces Heat Deformation

The stand alone oil tank ensures the machining precision will not be affected by heat. It is also convenient and efficient for cleaning and maintaining the oil tank.

User-friendly Operation and Easy Maintenance

Hydraulic gauges, control values of chuck and tail stock, and the central lubrication system are located at the front side for easy operation and maintenance.

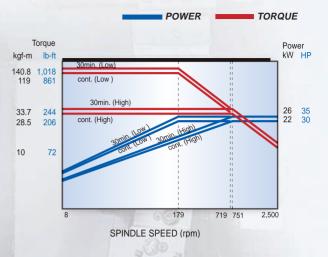
High Precision and High Rigidity Programmable Tailstock

Using "M" code commands the quill stroke of the programmable tailstock can be hooked with a hydraulic hook to the saddle carriage and slide along the Z-axis stroke. Tailstock with live quill is standard.

Environments Concerned Safety Guarding

From the window of the safety guard, operator can see through the engaged job, and shield from the cutting chips and coolant mist.

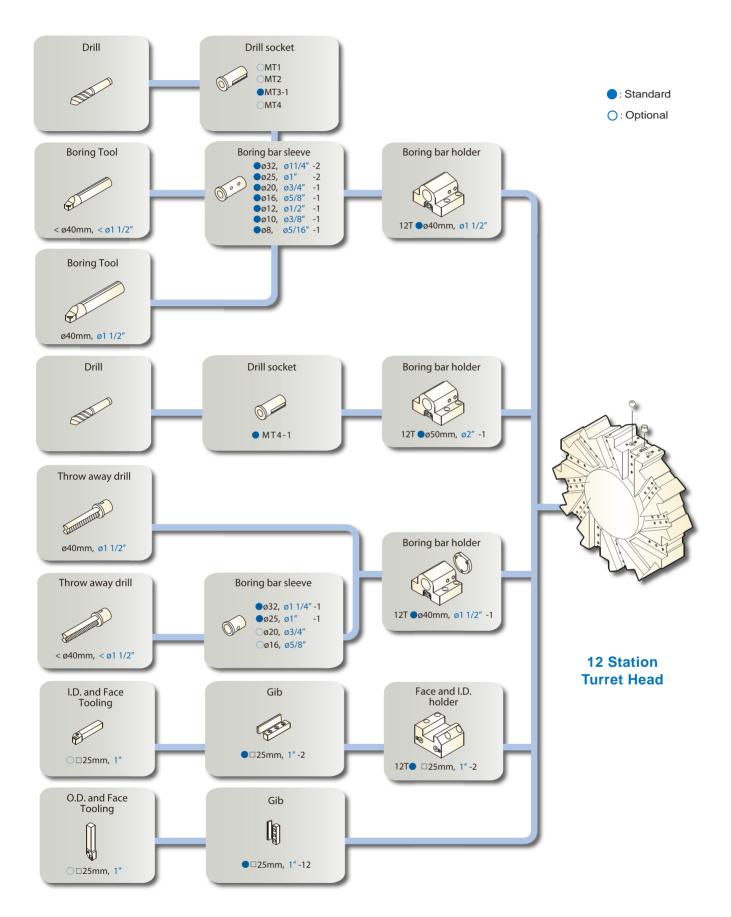
Spindle Power-Torque Output Chart







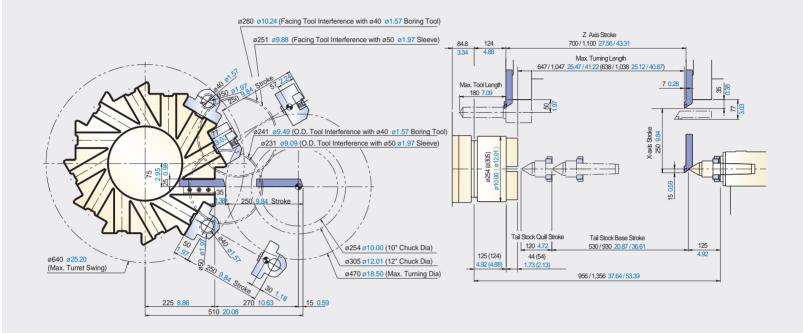
TURRET ACCESSORIES



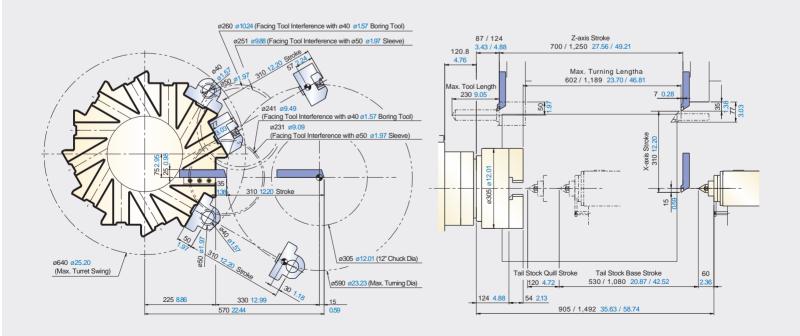
TOOL INTERFERENCE & WORKING CAPACITY

Unit : mm inch Spindle Center

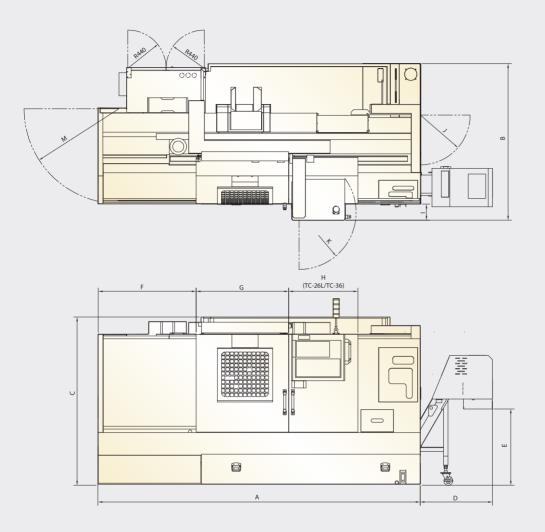
TC-26/TC-26L

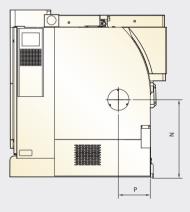


TC-36W/TC-36



Unit : mm inch





	A	в	с	D	E	F	G	H (2nd Door)	I	J	к	М	N	Р
TC-26	3,250 127.95"	1,786 70.31"	1,841 72.48"	810 31.89"	859 33.82"	1,010 39.76"	1,060 41.73"	-	185 7.28"	575 22.64"	654 25.75"	1,090 42.91"	900 35.43"	365 14.37"
TC-26L	3,690 145.28"	1,786 70.31"	1,861 73.27"	835 32.87"	859 33.82"	1,125 44.29"	1,060 41.73"	780 30.71"	185 7.28"	575 22.64"	654 25.75"	1,113 43.82"	900 35.43"	365 14.37"
TC-36W	3,390 133.46"	1,993 78.46"	2,011 79.17"	785 30.91"	876 34.49"	1,095 43.11"	1,060 41.73"	-	206 8.11"	556 21.89"	663 26.10"	1,117 43.98"	960 37.8"	435 17.13"
TC-36	3,936 154.96"	2,093 82.40"	2,011 79.17"	770 30.31"	876 34.49"	1,095 43.11"	1,060 41.73"	840 33.07"	206 8.11"	572 22.52"	663 26.10"	1,117 43.98"	960 37.8"	435 17.13"

SPECIFICATIONS

		TC- 26	TC- 26	TC- 36 //	TC- 36		
MACHINING CAP	ACITY						
Swing Over Bed		ø500n	nm ø19.69"	ø690mm ø27.17"			
Swing Over Carriage	e	ø350n	nm ø13.78"	ø510mm ø20.08"			
Max. Turning Diame	ter	ø470n	nm ø18.50"	ø590mm	ø23.23"		
Max. Turning Length	n (opt.)	647mm (638mm) 25.47" (25.12")	1,047mm (1,038mm) 41.22" (40.87")	602mm 23.70"	1,189mm 46.81"		
Distance Between C	Center	956mm 37.64"	1,356mm 53.39"	905mm 35.63"	1,492mm 58.74"		
SPINDLE							
Chuck Size (opt.)		10)" (12")	12	II.		
Spindle Nose			A2-	8			
Hole Through spindl	е	ø88n	חm ø3.46"	ø105mm	ø4.13"		
Hole Through draw b	bar	ø78n	חm ø3.07"	ø93mm	ø3.66"		
Onin dla On e e d	std.	10" L: 8~195~783rpr	n H: 40~1,007~4,000rpm	12" L: 7~180~719rpm	H: 30~751~2,500rpm		
Spindle Speed	opt.	12" L: 8~195~783rpn	n H: 40~1,007~2,500rpm	_	-		
Spindle Motor (cont./	/30min.)	11/15k	W 15/20HP	22/26kW	30/35HP		
TRAVEL							
X-axis Travel		250	nm 9.84"	310mm 12.20"			
Z-axis Travel		700mm 27.56"	1,100mm 43.31"	700mm 27.56"	1,250mm 49.21"		
FEEDRATE							
Rapid Feedrate (X/Z))	15/20m/min. 591/787ipm					
Cutting Feedrate		1~5,000mm/min. 0.04~197ipm					
TURRET							
Turret Type			Hydraulic	Turret			
Turret Capacity (opt.))	12T (8T)					
Shank Height for Squ	are Tool	12T: □ 25mm 1" (8T: □ 32mm 1¼")					
Shank Diameter for E	Boring Bar		12T: ø40/ø50mm ø1½" /	′ ø2" (8T: ø50mm ø2")			
TAILSTOCK							
	std.	MT-5 (St	ationary Type)	MT-4 (Live Type)			
Tailstock Quill Taper	opt.	MT-4	(Live Type)				
Tailstock Quill Diame	ter		ø100mm	ø3.94"			
Tailstock Quill Stroke			120mm	4.72"			
Tailstock Stroke		530mm 20.87"	930mm 36.61"	530mm 20.87"	1,080mm 42.52"		
GENERAL							
Power Consumption	(Transformer)	27.7k	/A (30kVA)	46.3kVA (65kVA)			
Machine Weight		4,400kg 9,700 lb	5,500kg 12,125 lb	5,450kg 12,015 lb	7,000kg 15,432 lb		
*We reserve the right to modify	y and improve our prod	ucts.					







Heat Exchanger for electrical cabinet

ACCESSORIES

●: Standard O: Optional -: None ★: Special

		TC-26	TC-26	TC-36	TC-36
Tool Kit		•	•	•	•
Work Lamp		•	•	•	•
Pilot Lamp		•	•	•	•
Automatic Door		0	0	0	0
Safety Door		•	•	•	•
Hydraulic System		•	•	•	•
	Tool Holder	•	•	•	•
Tool Holder	VDI Tool Holder	0	0	0	0
Hydraulic Hollow Chu	ck	•	•	•	•
Hard and Soft Jaws 1		•	•	•	•
Additional hard and S	oft Jaws	0	0	0	0
Soft Jaw Former		0	0	0	0
Collet Chuck		0	0	-	_
Padel for Spindle		•	•	•	•
Padel for Tailstock		0	0	0	0
Programmable Tailsto	ock	•	•	•	•
	Stationary Type	•	•	-	_
Tailstock Quill Taper	Live Type	0	0	•	•
Full Chip Enclosure		•	•	•	•
Leveling Blocks and E	Bolts	•	•	•	•
Foundation Screw Bo		0	0	0	0
Air Gun		•	•	•	•
Cutting Air Blast		0	0	0	0
	System MTH2-30/3	•	•	•	•
Coolant Equipment	System MTH2-40/4	0	0	0	0
	System MTR3-17/17	*	*	0	0
Coolant Gun		0	0	0	0
Oil Skimmer		0	0	0	0
Paper Filter		0	0	0	0
Coolant Shower Syste	em	0	0	0	0
Oil-mist Collector		0	0	0	0
Central Lubrication Sy	/stem	•	•	•	•
Central Eublication 0	Right Side	•	•	•	•
Chip Conveyor	Back Side	*	0	*	*
Heat Exchanger for E		•	•	•	
A/C. Cooler for Electr		0	0	0	0
Workpiece Length Se		0	0	0	0
Auto Tool Length Mea		0	0	0	0
Bar Feeder	Surement Oystem	0	0	0	0
Parts Catcher for Mai	n Spindle	0	0		
T ANS CALCHET IOF MAI	X-axis				
Feeder Safety Clutch	Z-axis	0	0	0	0
Parte Convoyor	2-0113	•	•	•	•
Parts Conveyor		0	0		-
CNC Control	TXP-100FA	•	•	•	•
Machanical Electrical	TXP-200FA	0	0	0	0
Mechanical Electrical		•	•	•	•
Steady Rest	Manual	0	0	0	0
-	Hydraulic	0	0	0	0

 \bigstar Special options, please consult with sales representatives.



Central Lubrication system



Hydraulic System



Tool Length Measurement System (opt.)



Chip Conveyor

Control Functions and Specifications

Controlled axis			
Item	Specifications	TXP-100FA	TXP-200FA
Controlled axis	4 axes	•	٠
Simultaneously controlled axis	4 axes	٠	٠
Axis name	X/Y/Z/U/V/W/A/B/C	٠	٠
Inch / Metric conversion	G21 / G20	٠	٠
Least input increment	0.001mm / 0.0001inch / 0.001deg	٠	٠
Increment system 1/10	0.0001mm / 0.00001inch / 0.0001deg	•	•
Fine Acc & Dec control		•	•
Follow-up		٠	٠
Inter lock	All axes / each axis / cutting block start	٠	•
Machine lock	All axes / each axis	٠	٠
Emergency stop		٠	٠
Overtravel		٠	٠
Stored stroke check 1		٠	٠
Position switch		٠	٠
Backlash compensation	Rapid traverse / cutting feed	٠	٠
Stored pitch error compensation		٠	•
Chamfering on/off	M22 / M23	٠	٠
M-Code mirror image	M94 / M95 / M96	٠	٠
HRV control	HRV2	•	٠
	HRV3		
Controlled axis expansion (total)	Max. 4 axes	0	0
Simultaneously controlled axis expansion (total)	Max. 4 axes	0	0

Operation			
ltem	Specifications	TXP-100FA	TXP-200F/
Automatic operation		•	•
DNC operation	Reader / Puncher interface is required	•	٠
Dry run		•	
Buffer register		۲	۲
Single block		٠	٠
MDI operation	MDI-B	۲	٠
JOG feed		٠	٠
Manual reference position return		•	٠
Manual absolute on and off		۲	۲
Manual handle feed rate	X1 / X10 / X100	۲	۲
Program number search		٠	٠
Sequence number search		۲	٠
Manual handle feed	1 unit / each path	٠	•
Manual handle feed	2 units	0	0
Manual handle interruption	Hardware is necessary	٠	•
Sequence number comparison and stop		٠	٠
Program restart	Hardware is necessary	•	•

Interpolation			
Item	Specifications	TXP-100FA	TXP-200FA
Positioning	G00	٠	٠
Dwell	G04	۲	٠
Linear interpolation	G01	۲	٠
Circular interpolation	G02 / G03	۲	٠
Thread, synchronous cutting	G33	۲	٠
Skip function	G31	۲	٠
Reference position return	G28	۲	٠
Reference position return check	G27	٠	٠
2nd reference position return		٠	٠
Threading retract		۲	٠
Continuous threading	G32	۲	٠
Variable lead threading	G34	۲	٠
Cylindrical interpolation		۲	٠
Polar coordinate interpolation	G12.1 / G13.1	٠	•
3rd / 4th Reference position	G30	•	•

Conversational programming function					
Item	Specifications	TXP-100FA	TXP-200FA		
Manual Guide i		۲	٠		
Tool function / To	ol compensation				

Item	Specifications	TXP-100FA	TXP-200FA
Tool function	T7+1 digit / T6+2 digit	٠	٠
Tool offset pairs	64 pairs	٠	٠
Tool nose radius compensation		٠	٠
Tool geometry / wear compensation		٠	٠
Tool offset value counter input		٠	٠
Automatic tool offest	G36 / G37 (Touch sencer and Macro B are necessary)	0	0
Tool life management function		٠	•

Feed function			
Item	Specifications	TXP-100FA	TXP-200FA
Rapid traverse rate		•	•
Rapid traverse override	F0, 25%, 50%, 100%	۲	٠
Feed per minute	G94 (mm/min)	۲	٠
Feedrate override	0~200%	۲	٠
JOG override	0~200%	۲	٠
Feed per revolution (mm/rev)	G95, A spindle position coder is required	٠	٠
Manual per revolution feed		۲	٠
Feed stop		۲	٠
Tangential speed constant control		٠	٠
Cutting feedrate clamp		۲	٠
Automatic acceleration / deceleration		٠	٠
Rapid traverse bell-shaped acceleration / deceleration		٠	٠
Linear acceleration / deceleration after cutting feed interpolation		٠	٠
External deceleration		٠	•

Item	Specifications	TXP-100FA	TXP-200F/
EIA / ISO automatic recognition		•	•
Label skin		•	
Parity check		٠	٠
Control in / out		۲	٠
Max. programmable dimension	± 8 - digit	٠	٠
Program number	O4 - digit	•	
Sequence number	N5 - digit	٠	٠
Absolute / Incremental programming		٠	
Diameter / radius programming		•	•
Direct drawing dimension programming		•	•
Decimal point programming / poket calculator type decimal point programming		•	•
Input unit 10 time multiply		۲	
Plane selection	G17 / G18 / G19	۲	٠
Rotary axis designation		٠	٠
Rotary axis roll-over function		٠	٠
Sub program call	4 folds nested	٠	•
Program stop / program end	M00 / M01 / M02 / M30	۲	٠
Reset		•	
G-Code A system		٠	•
Canned cycles	G70~G76	٠	٠
Coordinate system setting		•	•
Automatic coordinate system setting		٠	٠
Coordinate system shift		٠	•
Direct input of Coordinate system		٠	٠
Workpiece coordinate system preset		•	•
Chamfering / corner R		•	
Programmable data input	G10	•	
Custom macro B	Macro B	٠	
Optional block skip	1, Hardware is necessary 9, Hardware is necessary	0	0
Canned cycles for drilling	G80~G89	•	٠
Program format FS10 / 11	Word and address format	•	٠
G-Code B / C system		•	٠
Workpiece coordinate	G52 / G53	0	0
system Addition of custom macro	G54~G59	0	0

Edit operation			
Item	Specifications	TXP-100FA	TXP-200FA
Number of registerable programs	400	•	•
Part program editing		•	•
Extended part program editing		٠	٠
Background editing		٠	٠
Program protect	1,280 (512kbyte)	٠	٠
Part program storage length	640M (256kbyte)	٠	٠
Playback	Hardware is necessary	٠	٠
Data input / output			
Item	Specifications	TXP-100FA	TXP-200FA
Reader / Puncher interfacer	RS-232 interface	٠	٠
Memory card interface	For maintenance	٠	٠
memory card menace	For customer	٠	٠
External message		•	•
Data Server-ATA	Slot unit is necessary Standard 2GB, Max. 4GB	0	0

•: Standard O: Optional -: None

Setting / Display			
Item	Specifications	TXP-100FA	TXP-200FA
Status display		•	•
Current position display		•	•
Program display	Program name 31 characters	٠	•
Parameter setting and display		٠	•
Alarm display		٠	•
Alarm history display		٠	•
Operation history display		•	•
Run hour and parts count display	Included Machining time stamp	٠	•
Actual cutting feedrate display		٠	•
Display of spindle speed and T code at all screens		٠	•
Display of hardware and software configuration		•	•
Graphic function	Graphic display unit is necessary	•	•
Dynamic graphic display	Graphic function is necessary	۲	•
Help function		٠	•
Clock function		٠	•
Data protection key		۲	•
Erase CRT screen display		•	•
Servo setting screen		٠	•
Spindle setting screen		٠	•
Periodic maintenance screen		٠	•
Maintenance information screen		•	•
	English, Chinese		
Multi-language display	Japanese, German, French, Spanish, Italian, Chinese (simplified characters), Korean, Portuguese, Dutch, Danish, Swedish, Hungarian, Czech, Polish	٠	•
Operation message history display		٠	•
Auxiliary / Spindle sp			
Item	Specifications	TXP-100FA	
Auxiliary function (M)	M8 digit	•	•
High speed M / S / T interface		•	•
Spindle speed function (S)		•	•

Auxiliary function (M)	M8 digit	•	٠
High speed M / S / T interface		•	
Spindle speed function (S)		•	•
Spindle override	50~200%	٠	•
Spindle positioning		٠	•
1st spindle orientation	M19	•	•
Rigid tapping	M29	٠	•
Spindle speed fluctuation detection function		٠	•
Cutting air blast	M14 / M15	0	0
Auto power off	M30	0	0

Others			
Item	Specifications	TXP-100FA	TXP-200FA
Status output signal		•	•
Connectable servo motor		•	•
Connectable servo AMP		٠	٠
Connectable spindle motor		•	۲
Connectable spindle AMP		٠	٠
8.4"color LCD / MDI (full key)	Separate type	٠	-
10.4"color LCD / MDI (full key)	Separate type	-	۲

Ne reverse the right to make any modification without notice.



The ATA FLASH memory card interface is standard. The huge volume of programs and production data can be carried

by flash memory card (option) for high-speed data transmission, and monitoring the machining execution.