

TM Series
Machining Integration

CZ MOOS
TRADING s.r.o.

Turning Milling CNC Lathe

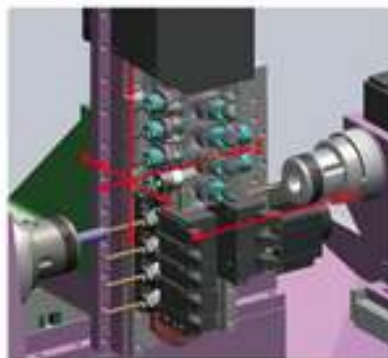
Cutting the Complex Parts through both Turning and Milling
by One Setup and skip any Fixtures.



TMA42CL**TMS42CL**

Simultaneous five axes control and twin synchronous

The simultaneous control of 5 axes gets machining part production by full synchronization of main and back spindles.



Special features:

1. The simultaneous control of 5 axes permits minimum part production times.
2. Flexible vertical tool holder system with 5 turning and 12 live tools.
4 stations for front machining and 4 stations for back machining.
3. Main spindle with C axis function
4. The 3 axes linear turret is ideal for chip discharge and offers an extreme rigidity.

Bar Feeder Optional Accessories

Machining from the bar is made easier with the bar feeder. The hollow cylinder can clamp the bar of 42mm diameter.



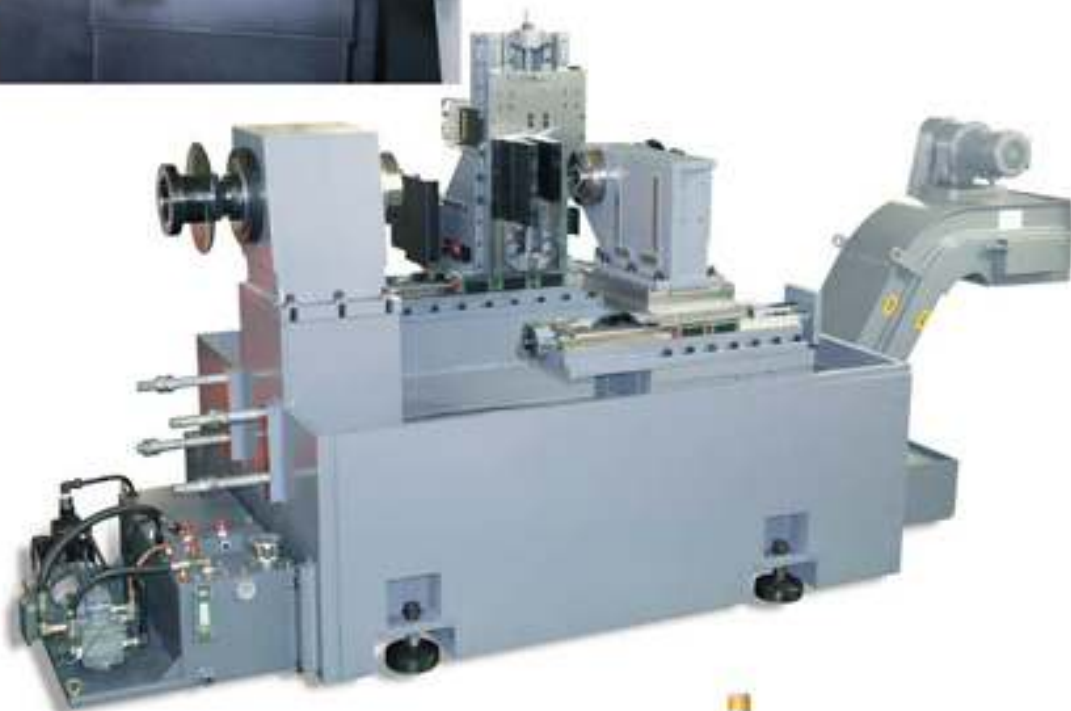
TMA42CL

- The basic turning and milling machine that can handle single part or small lot complex parts.

TMD42CL



spindles.
times



TMA50CL

► The basic turning and milling machine that can handle single part or small lot complex parts.



TMS42CL



TMS42CL
Machining Integration

► **TMS42CL for Synchous Internal Turning Tailstock**

For the short cycling time parts, the tailstock can cut the internal part simultaneously to reduce the machine time about 40%.

The inclined bed is ideal for chip discharge and offers an extreme rigidity.



TMD42CL

TMD42CL
Machining Integration

- The full synchronization of main and back spindles can cut both end and finished part without any fixture.



TMD50CL
Machining Integration

Durable and Compact Hardwares

Arix CNC MX5 hardware has become more compact and reliable. The slimline operator panel has an extremely low mounting depth. High contrast and good readability even from extreme angle of vision make operation easier. All the keys arrangement is optimized for the operation on the TM series with bar feeder.



▲ The operation panel with MPG, override switches, and splash proof keys provides the excellent user-friendly operation feeling.



▶ The rigid IPC unit equips with the low power dissipation industrial Pentium CPU, reliable servo boards and I/O boards.



▲ All the spindle inverter, AC servo drivers and motors are durable and permit the best reliability.

Easy Programming Teach-In Functions



TURNING (STRAIGHT AND TAPER)

Input the profile data from the blueprint. Press the simulation key to generate the graphic tool path.



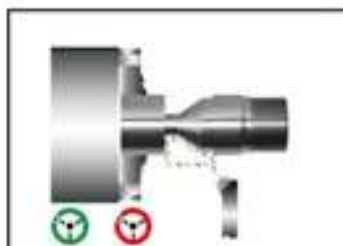
FACING (STRAIGHT AND TAPER)

Input the specific parameters for this operation according to the graphic guide.



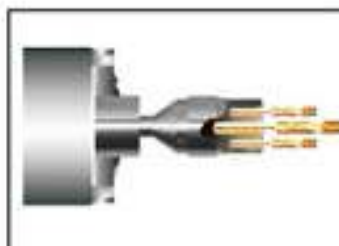
THREADING (STRAIGHT, TAPER AND MULTIPLE)

For straight, taper or facial type of threads can be multiple as well.



MPG SIMULATION

After the machining program is loaded, select the MPG mode to let the NC program be executed according to the MPG rotation speed.



END DRILLING

Input the start, end point and drilling conditions to generate the NC program.



GROOVING (LONGITUDINAL AND AXIAL)

Do both longitudinal and axial grooving combining roughing and finishing.



Hydraulic Chuck

The standard hydraulic collect chuck controlled by a foot switch for efficient clamping. For the optional jaws chuck, inward or outward clamping can be set by parameters.



Precision Spindle

The cartridge type is conveniently removed allowing for convenient servicing. The spindle runs on class P4 precision bearings providing high axial thrust capability. This ensures high precision during heavy duty turning.



8" Hydraulic Jaws Chuck (For TM50/TMD50)

The optional jaws chuck controlled by a foot switch for efficient clamping. The inward or outward clamping can be set by parameters.



Linear Live Tools Turret

The turret provides quick tool change and reduces no-cutting time by linear transverse. The live tools are powerful enough to cut even stainless steel bar up to 42mm.



Spindle hydraulic brake

The two steps hydraulic brake that can ensure the smooth C axis motion for machining in light braking force. The heavy braking can stop and take all the vibration from milling operations.



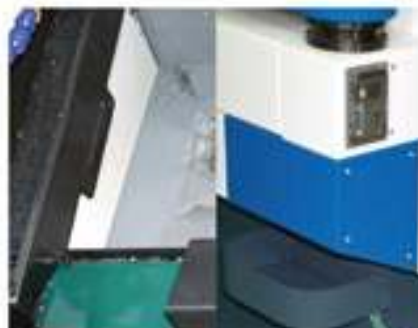
Network/ CF card reader

The 100 Mbps network with firewall can speed up the connection to external devices. The CF card that can be used as large as 2 GB is more convenient than conventional memory storage. It is easy to access and upgrade.



All axes are rigid linear guides

The six blocks support gives the highest rigidity and accuracy among similar specifications machines.



Part Conveyor and Collector

The standard part conveyor gets the production fully automation.



Part Catcher

The standard part catcher makes the whole process more smoothly.



Spindle motor

The BBM motor can cover both low speed high torque C axis motion and high speed turning.



Chip Conveyor

The standard chip conveyor brings o chips efficiently and let the cuttl clean.



Swiveling operating panel with LCD display

Turning Milling Machine Specifications :

Specifications	Unit	TMA42CL	TMS42CL	TMD42CL	TMA50CL	TMD50CL
Max. Turning Diameter	mm	130	130	130	130	150
Max. Turning Length	mm	160	160	160	160	300
Stroke of X	mm	225	225	205	225	270
Stroke of Z	mm	235	235	235	235	450
Stroke of Y	mm	385	385	385	385	370
Stroke of X1	mm	N/A	460	N/A	N/A	N/A
Stroke of Z1	mm	N/A	350	350	N/A	460
Main Spindle Bore	mm	42	42	42	50	50
Main Spindle Nose		A2-5	A2-5	A2-5	A2-6	A2-6
Main Spindle speed	r.p.m	40-6,000	40-6,000	40-6,000	40-4,000	40-4,000
Main Spindle Power	Kw	7.5	7.5	7.5	11	7.5
Sub Spindle Bore	mm	N/A	N/A	30	N/A	30
Sub Spindle Nose		N/A	N/A	A2-4	N/A	A2-5
Sub Spindle speed	r.p.m	N/A	N/A	40-3,000	N/A	40-3,000
Sub Spindle Power	Kw	N/A	N/A	3	N/A	3
Number of fixed tools	mm	5 Turning + 10 I.D	5 Turning + 10 I.D	5 Turning + 10 I.D	5 Turning + 10 I.D	5 Turning + 10 I.D
Turning tool diameter	mm	16 & 20	16 & 20	16 & 20	16 & 20	16 & 20
Boring tool diameter	mm	25	25	25	25	25
Number of live tools		8	8	10	8	11
Power of live tools		1	1	1	1	1
Tailstock		N/A	5 I.D Tools	N/A	N/A	N/A
X axis servo motor	Kw	1	1	1	1	1
Y axis servo motor	Kw	1	1	1	1	1
Z axis servo motor	Kw	1	1	1	1	1
X1 axis servo motor	Kw	1	1	N/A	1	N/A
Z1 axis servo motor	W	N/A	0.5	1	N/A	1
Rapid Transverse	Kw	15	15	15	15	15
Coolant Tank Capacity	M/min	40	40	40	40	15
Coolant Pump	L	1/2	1/2	1/2	1/2	1/2
Hydraulic Pump	HP	1	1	1	1	1
Dimension	HP	2.5 x 1.9 x 1.8	2.5 x 1.9 x 1.8	2.5 x 2.1 x 1.8	2.5 x 1.9 x 1.8	2.5 x 2.1 x 1.8
Machine Weight	Kgs	3000Kgs	3200Kgs	3500Kgs	3000Kgs	3700Kgs

■ Design and specifications are subject to change without prior notice.

Standard Accessories:

- Operative Lamp
- Tool Box
- Tapping Shaft
- Drilling Shaft
- Automatic Lubricant System
- Part Catcher
- Chip Conveyor
- Servo Motor 1000W
- Side Milling 4PCS +
- Front Side Milling 4 PCS

Optional Accessories:

- Auto Bar Feeder Machine
- Automatic Transformer & Stabilizer (15Kva)

