

V450 Series



Mini - High Speed High Precision CNC Machining Center

ARIX CNC MACHINES CO., LTD.



ARIX CNC MACHINES



- V450 BT30-10,000-12,000RPM
- V450A BT30-24,000RPM

• V450 BT40-8,000-12,000RPM •

More Accurate and Cheaper Cutting through High Speed Machining

From product design, prototyping, mold making, parts processing to various products manufacturing, always need to consider how to maximize the profit margins and minimize the redundant production process to get the biggest returns. The cost of manufacturing getting higher and higher BUT the profit getting lower and lower, the only solution is high speed high accuracy machining to fulfill the customer requests on shorter delivery and simplified operations procedures.

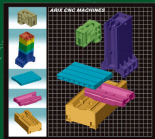
ARIX CNC being research and develop on Industrial PC based CNC controller for many years and selling to various countries such as Germany, France, Italy, South Africa, Hong Kong, China and etc. The feed back from Customers was that the development of High Speed High Precision CNC Controller is a MUST. ARIX CNC research and develop her own High Speed CNC Controller so as to provide a cheaper peripherals functions such as networking, Hard Disc Drives, Remote monitoring besides High Speed Machining.

The 2000 blocks look ahead function and bell shape Accelerating / Decelerating integrated to become High Speed High Precision Technologies. We are dedicated to provide a High Speed High Precision Machining environment so as to reduce traditional Machining time to more than 50% but also provide a much more better accuracy.

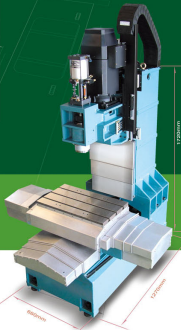
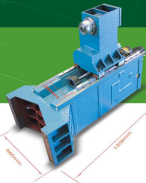
After Customers operating ARIX CNC Machines they found that the direct machining of 50 HRC up harden materials become easier and more accurate and can get rid of the previous complicated EDM / hardening those procedures through our High Speed High Precision Machining. ARIX CNC provides a much more smoother surface during high speed machining and even though engraving on Stainless Steel Surface. Such performances fully match with the current market requirements on quicker machining so as to achieve shorter delivery lead-time requirements from their Customers.



High Rigidity and High Precision Structural Design -Reliable Accuracy Foundation.



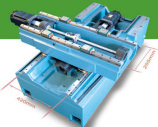
- All casting structures undergo precise and detailed designs, analysis and calculations by CAD/CAE software.



- No counter weight Z-Axis driving system design eliminates all the oscillation from speed upwards-downwards motion.



- The high rigidity direct-drive coupling can transmit torque efficiently and reduce the torsion displacement to minimum. These guarantee the accurate cutting of sharp edge during the high speed machining.



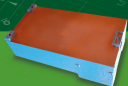
- The design of fully support linear motion guide reduces the gravity deformation during mechanical movement to a minimum.

Modularized multi-purposes spindle designs fit all requests from different users. From heavy duty cutting BT40 spindle to high speed & high accuracy ceramic spindles can provide a total solution to all machining operations.



- BT30 build-in ceramic high-speed spindle combines both milling and engraving operations within one machine.

- BT40 timing belt spindle provides bigger horsepower also allows installing optional central coolant through spindle.

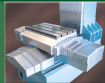


- Closed box designed base with three points supports provides high rigidity and accuracy foundation.

- All three-axis use linear motion guides XY25mm / Z 32mm that generate more smooth motion under lower friction.

- Closed and sealed casting with damping sand inside can absorb all the vibration from high speed machining. The heavy machine design can bear the high acceleration and deceleration without vibration. Both result in smooth and fine surface on complicate 3D profile.

3 -Axis Telescope Covers



- Better protection to transmission system and more effective for getting rid of cutting chips while using 3 -Axis telescope covers

Standard Armless Type 10 tools ATC



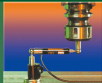
- Standard armless 10 tools ATC provides a stable and reliable tool changing mechanism.

Laser Calibration before Delivery



- Laser Calibration Instruments is used on every machine before delivery to customers to guarantee the positioning accuracy after a minimum of 48 hours dry running.

Ball-Bar Testing



- ARX CNC can provide a Ball Bar Testing to replace actual circular cutting Test to adjust the relevant electrical parameters.

Optional Coolant Through Spindle device



- BT40 Spindle can enhance Drilling efficiency with optional Coolant Through Spindle unit.

Optional Arm Type 20 tools ATC



- Faster tools changing mechanism suitable for parts machining.

Optional High Performance 4th Axis Rotary Table



- With the high rigidity and high precision of 4th axis rotary table can provides stable and reliable rotation and index accuracy.

Optional Universal Functions 5th Axis tilt Table



- The simultaneous motion of 5 Axis provides universal machining applications.

Optional Spindle Configurations



- BT30-12000RPM/BT30-24000 RPM >
- BT40-8000RPM/BT40-12000 RPM >

Optional Tool Length Setter 1



- Covered Tool Length setter allows automatic tool length offset by CNC unit.

Optional Tool Length Setter 2



- "Renishaw" Tool Length Setter can measure and offset the tool length and radius even though the tool is rotating.

Optional Spindle Oil Cooler



- Spindle Oil Cooler keeps the operating temperature constant and prolongs spindle's life / accuracy and etc.

- CNC Controller Unit



ARIX CNC Controller Unit consists of 3 sets of Cards and provides high reliability. The LED indicators also provides easier diagnostics functions.



The durable Japanese SANYO DENKI Digital AC servomotors and drivers highly enhance the reliability of ARIX CNC Machines.



- Optional MPG Hand Unit.



- Optional Optical Feed Back Scale



Closed loop optical scales keep the machine accuracy under the temperature variations and long-term operation of the mechanical parts.

- Optional Air Conditioner for Electrical Cabinet



The Air conditioner isolates the oil moist and graphite powder from machining operations.

- Electrical Solenoid Wiring Board



Neat and simple wiring board provides an easy checking environment for troubleshooting and diagnostics.

- Floppy Disk Drive



The Floppy Disk Drive with Covering is easier for accessing and maintaining.

- Compact Flash Memory Card



Optional Compact Flash Memory Card provides a multi access environment.

- ARIX MX5 Controller



• 10.4" TFT LCD Screen with simple and user friendly interface.

- INTEX M450 Controller



V450 MACHINE SPECIFICATIONS

() Optional

Table	Working surface	355x510mm
	T slot	14mmx100x3
	Load Capacity	150KGS

Travel	Stroke (X x Y x Z)	450x350x350mm (Z 410mm)
	Center to Column	410mm
	Nose to Table	150~550mm

Spindle	Spindle Taper	BT30 (BT40)
	Spindle Speed	10,000 RPM (6,000/12,000/24,000 RPM)
	Spindle Horse Power	5 HP (7.5 HP)

Transverse	Rapid X, Y axis	20 MM/MIN
	Rapid Z axis	10 MM/MIN (20 MM/MIN)
	Max. Feed	10 MM/MIN
	Servo Motor Power	1 KW (2 KW)

Accuracy	Positioning accuracy	+/-5µm
	Repeatability	2µm

Machine	Dimension W x D x H	1500 x 2000 x 1850
	Weight	2800KGS
	Power source	15KVA

Standard Accessories

- Tools box
- Automatic lubrication system
- Full closed cover
- work lamp and alarm lamp

Optional Accessories

- Rigid tapping
- BT40-12,000RPM
- BT30-24,000RPM
- Rotary table 125mm
- Arm Type 20/16 tools ATC
- Hard driver
- Ethernet
- Five axis table 125mm
- Coolant Through Spindle device
- Tool Length Setter

* Specifications and designs are subject to changed without notice *

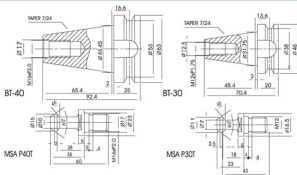
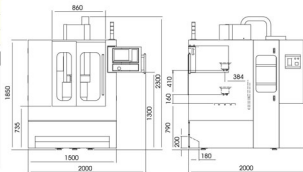


TABLE SPECIFICATIONS



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