

## Contact

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**ARIX**

## V Series

450 700 1000 1200 1600



## Versatile High Speed & Accuracy Five Axis Machining Centers V series

### Instant One-Setup solution for the complex parts of five sides or five axis milling.

The demand of milling has changed rapidly in the past few years. There are more challenges now to the mechanical components milling: The increasing design complexity of parts, the rush to new products to market due to shorter life, the batch sizes cover prototype and high production, the shortage of skilled technician and cost. Faces all these trends, we provide the optimal solution through five sides teach-in software functions, add-on five axis table and integrated five axis table. We provide these most economic machines to give our customers ability to handle the most demanding milling jobs flexibly, quickly, precisely and economically. The done-in-one capability gives the metalworking shop the edges to establish a new role in the future of changing.



V700



V1200



V450



V1000



V1600

# V450

## Compact Universal High Accuracy Centers

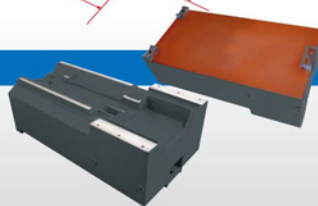
The same frame with different modules like spindles, ATC, forth axis and five axis tables can cover diversified milling demand from electrodes to stainless steel parts.



The smallest diameter five axis table TRT100 is specialized for complicated parts like watch components, jewelry parts and medical and dentist parts. TRT100 is the optimal solutions for labs and workshops.



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.



Closed box designed base with three points supports provides high

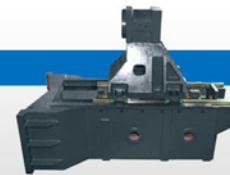
## Compact Powerful Universal High Speed Centers

The similar concept from V450 that is heavier and bigger. V700 has the large Y stroke as 500 mm but occupies less space than traditional 800 models. This is mechanical parts milling oriented design structure takes heavy duty cut up to 15KW.

# V700



The five axis table TRT170 covers medium ranges parts milling. The most mechanical parts can fit this and make the V700 versatile solution for complex profile machining. The spindle can integrate the su-spindle up to 50,000RPM to get super-finished surface.



The robust body with linear guides up to 35mm takes heavy duty cut and generates smooth finish surfaces.



The rigid base with rear slanted chips collecting tunnels gives the best accuracy to the whole machines.

# V1000

## Powerful Universal Centers

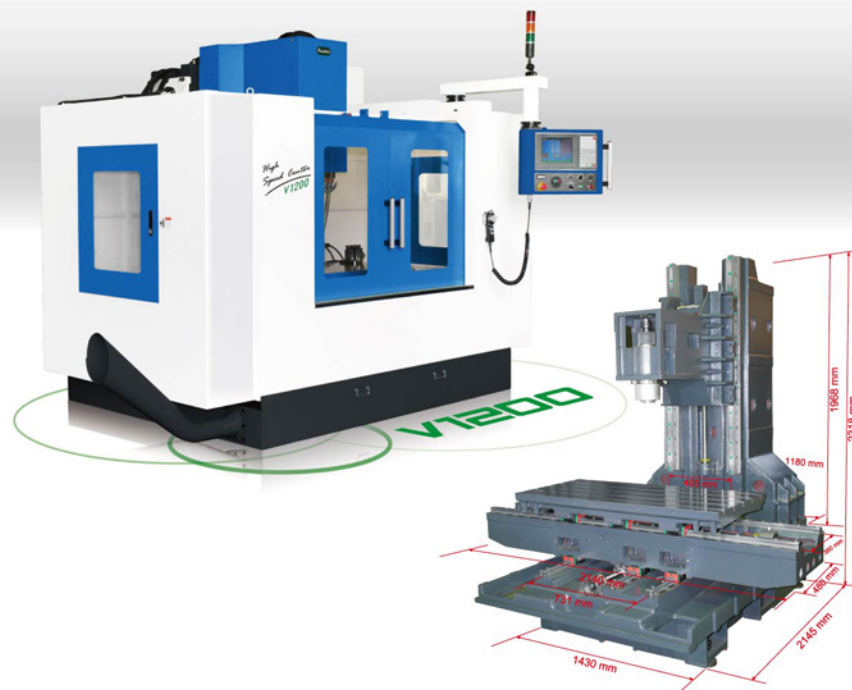
V1000 has the biggest Y travel as 650mm among similar models. V1000 is the most cost effective high speed centers to cut the accurate mould base or large mechanical components.



## Compact Powerful Universal High Speed Centers

V1200 with three linear guides up to 45mm can bear the largest integrated five axis table up to 500mm. V1200 is the optimal solution for five axis milling of aviation components, structure components and navigation components.

# V1200



**TRT250**  
The Add-on five axis TRT250 makes the 3D and five axis milling are exchangeable.



The head unit can bear BT40 or BT50 spindles that cover heavy duty cut to high speed milling based on different configuration.



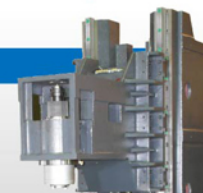
The rigid box type base let the Y axis travel up to 650 mm and keeps better accuracy among similar models.



**ERT500**  
The integrated design takes out the table and can bear more weight than conventional add-on five axis table. There are less interference in the large part machining by this design.



There are three linear ways that can bear the heavy weight from the load or five axis table but still keep good accuracy.



The six blocks head unit can fit BT40 or BT50 spindles. The z axis keeps less deformation during forth and back motion through this design.



## Gear Head Heavy Duty Center

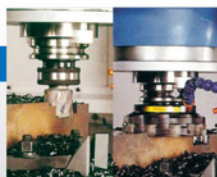
The geared-head spindle provides increased torque for heavy cuts, still keeping the ability to run at high rpm for high speed machining. The BT50 is standard for the spindle.



**TRT 450**  
TRT 450 is the largest add-on five axis table on the V1600.



There are two optional gear boxes. The integrated gear box has an oil-cooling system circulates oil to all vital areas inside the gear box. The ZF gear box is also possible BT50 up to 8000RPM.



**End Mill**  
Tool: 50 mm  
Feed-Rate: 150 mm/min  
Depth of Cut: 48 mm  
Spindle Speed: 500 rpm  
Travel: 360 CC/min  
Material: S45C

**Face Cutter**  
Tool: 100 mm  
Feed-Rate: 880 mm/min  
Width of Cut: 100 mm  
Depth of Cut: 5.7 mm  
Spindle Speed: 400 rpm  
Travel: 500 CC/min



**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.



**Compact Flash Memory Card**  
Optional Compact Flash Memory Card provides a multi access environment



**Electrical Solenoid Wiring Board**  
Neat and simple wiring board provides an easy checking environment for troubleshooting and diagnostics.



**ARIX Monitor**  
10.4" TFT LCD Screen with simple and user friendly interface.



**Optional Remote Unit.**



**Option Optical Feed Back Scale**  
Closed loop optical scales keep the machine accuracy under the temperature variations and long-term operation of the mechanical parts.



**AC motors & Drivers**  
The durable Digital AC servomotors and drivers highly enhance the reliability of ARIX CNC Machines.



## Standard



Armless ATC



Laser calibration



Ball bar test



Heat exchanger

## Optional



Arm type ATC



Coolant Through Spindle (CTS)



Spindle oil cooling system



Air Conditioner for Electrical Cabinet



Laser Tool pre-setter



Tool length pre-setter (Mechanical)



3D Tool pre-setter (Mechanical)

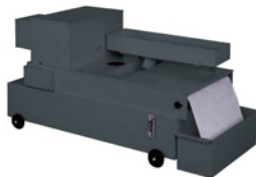


Five axis tables (100mm-500mm)



3D touch probe

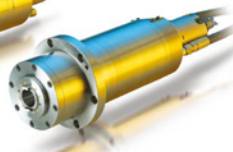
## Spindles



Coolant particles filter (10um) for CTS



Built-in BT40 15,000 rpm



Built-in BT30 24,000 rpm



Timing Belt Driver BT40

## Machine Specifications :

( ) optional

Specifications	UNIT	V450	V700	V1000	V1200	V1600
Travel	X axis	mm	450 mm	700 mm	1020 mm	1220 mm
	Y axis	mm	350 mm	500 mm	620 mm	800 mm
	Z axis	mm	350 mm	450 mm	610 mm	700 mm
	Nose to table	mm	160 ~ 560 mm	160 ~ 800 mm	160 ~ 770 mm	150 ~ 790 mm
Transverse	X / Y / Z	M/min	20 / 20 / 10 M/min	24 / 24 / 20 M/min	24 / 24 / 20 M/min	12 / 12 / 12 M/min
Max feed	X / Y / Z	M/min	10 M/min	10 M/min	10 M/min	10 M/min
Table	Working surface	mm	610 x 365 mm	700 x 500 mm	1260 x 560 mm	1400 x 630 mm
	T slot	mm	14 x 3 x 100mm	14 x 4 x 100 mm	18 x 5 x 100 mm	18 x 5 x 125 mm
	Load capacity	kg	150 kg	600 kg	800 kg	1200 kg
ATC	ATC type	type	Armless	Armless	Armless	Armless
	Tool number		10 (20/16)	16	24	24
	Pump power	HP	1/2 HP	1/2 HP	1/2 HP	1/2 HP
Coolant System	Tank capacity	L	120 L	120 L	350 L	350 L
	Max Speed	RPM	8,000 (12,000)	10,000	8,000	8,000(12,000)
	Taper		BT 30 (40)	BT 40	BT 40 (50)	BT 40 (50)
Spindle	Motor Power	HP	5 (7.5) HP	10 / (15) HP	15 / (20) HP	15 / (20) HP
	Cooling way		(Oil Cooler)	Oil Cooler	(Oil Cooler)	(Oil Cooler)
	Center to column front	mm	410 mm	510 mm	700 mm	720 mm
	Max. tool length	mm	250 mm	250 mm	250 mm	250 mm
Tool	Max. tool weight	kg	5 kg	5 kg	7 kg	7 kg
	Motor of tool magazine	w	100 w	100 w	100 w	100 w
Motor	X, Y & Z servomotors	kw	1 / 1 / 1 kw	1 / 1 / 2 kw	2 / 2 / 2 kw	2 / 2 / 2 kw
	Air pressure	kgf/cm <sup>2</sup>	5 ~ 7 kgf/cm <sup>2</sup>	5 ~ 7 kgf/cm <sup>2</sup>	6 ~ 8 kgf/cm <sup>2</sup>	6 ~ 8 kgf/cm <sup>2</sup>
	Power consumption(Max.)	KVA	15 KVA	14 KVA	25 KVA	25 KVA
Machine	Packing ( L x W x H )	cm	150 x 200 x 195	205 x 243 x 250	335 x 270 x 290	330 x 230 x 260
	Net weight	kg	2,800	4,500	6,200	7,200

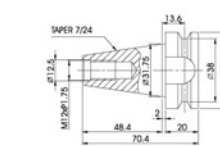
■ Design and specifications are subject to change without prior notice.

## Standard Accessories :

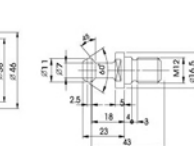
1. Work lamp
2. Tool Box
3. Coolant pump
4. Coolant system
5. Air blow
6. Heat exchanger
7. Alarm lamp
8. Full closed guard
9. Automatic lubricator system
10. Manuals
11. Armless ATC

## Optional Accessories :

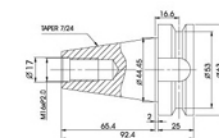
1. Hard driver
2. USB Interface
3. Arm type ATC
4. 4 / 5th axis table
5. Tool pre-setter
6. Oil-water separator
7. Oil mist coolant
8. CTS system
9. 3D Touch probe
10. Chip conveyor
11. Remote MPG



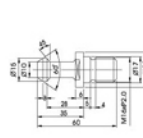
BT-30



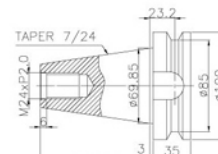
MSA P30T



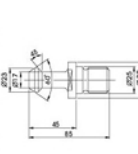
BT-40



MSA P40T



BT-50



MSA P50T