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TECHNIQUE & INGENUITY ADHERE TO QUALITY CREATE VALUE

Shinzawa Precision Machinery was established because of the constant **pursuit of progress**, and firmly believes that progress always comes from the affirmation of customer satisfactions. Pursuing the innovative research and development of **striving for perfection** is the top philosophy.

Shinzawa's enterprise spirit: innovative technology to create the interests of customers; comprehensive service to impress customers; fine quality to build trust. Provide customers with top-level production machines.







CORPORATE PURPOSE



PROMINENCE

INSPECTION & Certification



Shinzawa Precision Machinery has passed the international ISO9001 and CE certification to ensure that its machines can meet the strict requirements of the aerospace industry. At the same time, the whole factory plant adopts the testing standards that meet Japan's JISB 6338, Europe's VDI / DGQ 3441 and international ISO8636.



QUALITY

NET ZERO YOUR MOST RELIABLE & SUSTAINABLE PARTNER

Shinzawa specializes in the production of CNC milling machines. All the operators and colleagues have a consensus that air pollution, waste water, waste and noise should be properly managed to provide a safe, healthy and suitable working and living environment for all employees and nearby residents.

For the concept of green machine tools, we use energysaving equipment and LED lighting from the office to the production site to reduce energy consumption. In the process of enterprises promoting carbon neutrality, Shinzawa starts from product design and manufacturing end. The product itself should also be adjusted accordingly to green manufacturing. For example, the light-weight and high-rigidity design of the body castings reduces the amounts of castings, and the electric furnace casting is used instead of coal-fired furnace to reduce environmental pollution.

Through software pre-simulation processing and machine precision calibration, the processing process can reduce vibration and impedance, reduce tool wear, improve processing efficiency, reduce resource waste, and monitor power consumption and carbon emission through real-time process.

SV-50S/65S/76S



FEATURES

The V-shaped rib base design has high rigidity and highprecision structural design. The new generation of small machine SV-76S occupies a small space and meets the market demand for high processing efficiency. The three-axis adopts precision linear slide rail design, and the X-axis stroke is 500 / 650 / 760 mm, which saves space and is more productive.

Tough Casting Structure

Structural castings are made of tough cast iron, which is stress-relieved to present a stable structure; the castings are designed with a box structure, which is highly resistant to bending and twisting.

Extra-Large Track Spacing Design

Effectively disperses the cutting force, prevents the saddle from overhanging, and maintains excellent dynamic accuracy. The three-axis transmission system adopts the design of direct transmission and pretensioning mechanism.





A-Shaped Column Design

FEA analysis effectively distributes the weight of the tool magazine and the axial and radial force of the head cutting.



Stable Low Center Gravity Base

It provides stable support for the whole machine, and the V-shaped rib structure design provides the best dynamic and static precision performance of the whole machine.

High-Speed and Stable Features

Focuses on the Design of the Structure To Ensure the Best Dynamic and Static Stability



Spacious interior



Hidden air pressure element



Proven production line

Item	Unit	SV-50S SV-65S		SV-76S			
X / Y / Z axes travel	mm	500 x 430 x 420 650 x 430 x 420		760 x 430 x 450			
Table size	mm	700 x 400	750 x 400	860 x 420			
Max. loading capacity	kg	25	250 300				
Spindle speed	rpm		12000				
Spindle motor	kW	5.5 / 7.5					
Spindle taper	-	BT-40					
Tool capacity	Pcs	24T					
X / Y / Z Rapid Feedrate	m / min	48 / 48 / 48(M) / 36 / 36 / 36(F)					
Net weight	kg	2950 3200		3700			

SV-85S / 110S / 130S / 865S / 1165S / 1365S



SV-1365S

FEATURES

The new enhanced overall structure design presents cutting performance and processing stability. Through FEA analysis, design and manufacture, whether it is mold, automobile, motorcycle, medical, aerospace, we will provide you with reliable and high-efficiency machines based on the solid industry experiences.

The three-axis is designed with roller linear guideway rails to meet the needs of superb high-speed and highefficiency machining; easy sales and high utilization rate.

MF-320 is an economical and high-efficiency multiface machining solution. In addition to the standard configuration, it also has a rotary worktable for 3+2 axis milling applications.

Perfect Design for Structural Stability

The saddle and workbench are designed in a box structure. The height of the structural parts is increased, and it has the perfect design of light weight, high rigidity, speed, and structural stability. The main spindle aspect ratio is 1:1 design.



Double Nut Ball Screw

High rigidity double nut ball screw driven by high power axial servo motor.



Extra Large Base and Column

Strengthen the quality of the bottom of the machine and the thick and stable structure of the Z-axis to ensure no shaking during high-speed movement and cutting.Column width is up to 1200mm.



Three-Axis Transmission System Important Interface

Assembled after precision scraping. After rigorous assembly and pretensioning, the long-term stability of the transmission system is ensured.



A New Generation of Vertical Processing Machine

Provide the Best Performance on Rigidity, High Speed, and High Precision of Axial / Radial Cutting



Arm type quick tool change mechanism



Y-axis left and right chip conveyor (optional)



Y-axis unique maze design for chip



Hidden air pressure element

Item	Unit	SV-85S SV-110S		SV-130S		
X / Y / Z axes travel	mm	850 x 600 x 600 1100 x 600 x 600		1300 x 600 x 600		
Table size	mm	1000 x 600	1000 x 600 1150 x 600			
Max. loading capacity	kg	800 900		1000		
Spindle speed	rpm	10000 (Direct drive)				
Spindle motor	kW	7.5 / 11				
Spindle taper	-	BT-40				
Tool capacity	Pcs	24T				
Rapid traverse speed	m / min	36 / 36 / 30				
Net weight	kg	6800 7000 7300				

Item	Unit	SV-865S SV-1165S		SV-1365S		
X / Y / Z axes travel	mm	850 x 650 x 600	1100 x 650 x 600	1300 x 650 x 600		
Table size	mm	1000 x 650 1250 x 650		1400 x 650		
Max. loading capacity	kg	800 900		1000		
Spindle speed	rpm	10000 (Direct drive)				
Spindle motor	kW	7.5 / 11				
Spindle taper	-	BT-40				
Tool capacity	Pcs	24T				
X / Y / Z Rapid Feedrate	m / min	36 / 36 / 30				
Net weight	kg	6900 7100		7400		

VB-127 / 147 / 157 / 168 / 178 / 208



FEATURES

Suitable for heavy-duty cutting, the high-rigidity hard rail design and scraping technology present the ultimate heavy-duty cutting processing capability. The hightorque spindle and large-diameter screw are combined with a three-axis hard rail design to meet the needs of difficult-to-cut materials and heavy-duty cutting capabilities.

Column Saddle Adopts Box Design

Wide and thick base design, box-design column, widened and lengthened saddle for heavy loads. The load is fully supported and the structure is solid, which can ensure the heavy load capacity during processing.



Four-Axis Hard Rail Base Design

Enhanced machining stability and reduced tool wear. The highrigidity hard rail design and scraping technology present the ultimate heavy-duty cutting processing capability.



Belt / Gear Type Available

The reinforced rib structure of the spindle head is designed, and the proportion of the head and the column is appropriate to provide stable support for the spindle.



Three-Axis Hard Rail Design

It can support heavy loads and ensure positioning accuracy during movement.

Perfect & Strict Precision Inspection

to Ensure the Best Quality



Y-axis left and right chip conveyor (optional)





Spindle motor diagram (Options)

Item	Unit	VB-127		VB-147		VB-157	
X / Y / Z axes travel	mm	1200 x 720 x 610 (BT-40) 1200 x 720 x 680 (BT-50)		1400 x 720 x 610 (BT-40) 1400 x 720 x 680 (BT-50)		1500 x 720 x 610 (BT-40) 1500 x 720 x 680 (BT-50)	
Table size	mm	1350 x 700		1550 x 700			
Max. loading capacity	kg	1400		1500			
Spindle speed	rpm	7.5 / 11 (BT-40 Belt Type) / 15 / 18.5 (BT-50 Gear Type)					
Spindle motor	kW	10000	6000	10000	6000	10000	6000
Spindle taper	-	BT-40 BT-50		BT-40	BT-50	BT-40	BT-50
Tool capacity	Pcs	24T					
Rapid traverse speed	m / min	15 / 15 / 12					
Net weight	kg	9700	10200	10000	10500	11000	12000

Item	Unit	VB-158		VB-178		VB-208	
X / Y / Z axes travel	mm	1500 x 850 x 750		1700 x 850 x 750		2000 x 850 x 750	
Table size	mm	1700 x 700		1900 x 800		2100 x 800	
Max. loading capacity	kg	1800		2200		2400	
Spindle speed	rpm	7.5 / 11 (BT-40 Belt Type) / 15 / 18.5 (BT-50 Gear Type)					
Spindle motor	kW	10000	6000	10000	6000	10000	6000
Spindle taper	-	BT-40	BT-50	BT-40	BT-50	BT-40	BT-50
Tool capacity	Pcs	24T					
X / Y / Z Rapid Feedrate	m / min	15 / 15 / 12					
Net weight	kg	13000 14000 15000				000	

S56-MT



FEATURES

Adopting the design concept of three-axis moving column horizontal structure, the double-station design allows A work area to process; B work area to load and unload parts. When the AB plate is exchanged, the worktable does not need to be lifted, which is beneficial to the production of any jig and saves processing time. It is suitable for processing of a large number or small amounts of various parts.

Force Flow and Aesthetic Design

The whole machine is cast with FC-300 material, injecting force flow and aesthetically designed structure thru FEA analysis, it is a moving body with high rigidity and sensitivity.



Horizontal Structure Elevation Design

The base is designed with a horizontal structure to reduce the weight of the moving parts. Combined with the highrigidity and digital design, it delivers the high-speed displacement without shaking.



Independent Installation of Tool Magazine

The independent installation of the tool magazine and the design of the protective door make the tool magazine completely isolated from the processing area. It can not only avoid the pollution of cutting chips or cutting fluid, but also make maintenance more convenient.

High Rigidity Linear Guideway

All three axes use high-rigidity roller rails, which can better demonstrate the rigidity of the machine tool.



High-Efficiency Worktable with Automatic Exchange Mechanism

It Is Your Best Helper for Mass Production

	√ : Installable	X : Not Installable
	S56-MT	Other Brand
4th axis rotary table	\checkmark	Х
hydraulic device	\checkmark	Х
eletromagnetic chuck	\checkmark	х





Compact interior



APC machine with three-plate clutch



Proven production line

Item	Unit	S56-MT			
X / Y / Z axes travel	mm	560 x 400 x 400			
Table size	mm	650 x 405 (two pallets)			
Max. loading capacity	kg	200 x 2 pcs			
Spindle speed	rpm	12000			
Spindle motor	kW	5.5 / 7.5			
Spindle taper	-	BT-40			
Tool capacity	Pcs	24T			
X/Y/Z Rapid Feedrate	m / min	30 / 30 / 30			
Net weight	kg	5500			

MTS-500



FEATURES

Double efficiency with patented dual-spindle design, the twin spindle can perform tool offset, which not only improves processing efficiency and doubles production capacity, but also greatly saves the floor space of the factory plant.

Spindle Heads Cross Large Span

The cross-patent design of the spindle head realizes the ultra-large column rail space and increases the geometrical precision of the structure.

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Three-Axis Roller Linear Guideway

The super large rail space can effectively disperse the cutting force, no saddle hanging phenomenon, and good dynamic accuracy.





Double Magazine Design

The double-spindle/doubletool magazine design reduces investment and labor costs. The spindle (D.D.S) speed has an option of 12000/15000 rpm. The tool arm type fast drive mechanism (T-T) completes in 1.5 sec.

Real-Time Monitoring Function

Equipped with a second screen, the dual-spindle tool change process monitoring can be seen at a glance. Optional functions: fault location display, reading operation manual, optional (CCD) monitoring function, high expandability suitable for flexible processing systems.



Stable and Low Center of Gravity

Base Support for the Whole Machine V-Shaped Rib Structure Design The Best Dynamic and Static Precision Performance of the Whole Machine



Item	Unit	MTS-500
X / Y / Z axes travel	mm	500 x 600 x 570
Table size	mm	1500 x 600
Max. loading capacity	kg	700
Spindle speed	rpm	10000
Spindle motor	kW	7.5 / 11
Spindle taper	-	BT-40
Tool capacity	Pcs	24T (30T)
X / Y / Z Rapid Feedrate	m / min	36 / 36 / 30
Net weight	kg	8400

SDC-1612 / 2212 / 3212



FEATURES

Shinzawa gantry milling machine provides the power required for processing large workpieces, and the whole machine uses meehanite metal with high rigidity and vibration suppression. Three-axis uses large outer diameter screw and high rigidity roller rail, through advanced research and development design and rigorous arrangement process. A high-speed and highprecision gantry machine meets your diverse processing needs. In addition, five-sided or five-axis processing needs are available for options.

XYZ Three-Axis Roller Linear Guideway

All three axes adopt roller linear guideway, X axis adopts #55 specification, six-slide block design (worktable), YZ axis

adopts #55 specification, Y axis is heavy-duty, and the rigidity is increased by 70%. The machine is suitable for long-term high-speed and high rigid cutting operation.



Saddle Support Adopts Stepped Design

The saddle, head and beam are combined with a stepped design to enhance the stability of Y-axis rapid movement, reduce vibration forward tilt and strengthen the rigidity of the spindle for high-speed cutting, thereby improving the machining accuracy of the machine.



Box Structure Base Design

Strengthen the arrangement of internal ribs, use 55mm high rigidity roller rails, and

increase the level of Ø63mm ball screw at the same time. Provide a reliable foundation to ensure the accuracy of highspeed machining.



Honeycomb Structure Design

The integrated casting structure design of columns and beams, and the contact surfaces of all components are manually scraped to ensure the accuracy of the machine and provide the best performance of dynamic and static rigidity.



New-Generation Designed High-Speed Gantry Machining Center





Spacious interior



Stable Z-axis balance mechanism



Strong cutting ability

Item	Unit	SDC-1612 SDC-2212		SDC-3212		
X / Y / Z axes travel	mm	1600 x 1200 x 800 2200 x 1200 x 800		3200 x 1200 x 800		
Table size	mm	1600 x 1100 2200 x 1100		3100 x 1100		
Max. loading capacity	kg	3000 3500		4000		
Spindle speed	rpm	10000				
Spindle motor	kW	11 / 15 (BT-40) / 18.5 / 22 (BT-50)				
Spindle taper	-	BT-40 / BT-50				
Tool capacity	Pcs	BT-40 : Disc type 30T / BT-50 : Chain type 32T				
X / Y / Z Rapid Feedrate	m / min	24 / 24 / 24				
Net weight	kg	17000 19000 23000				

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