

SV-50S/65S/76S series

The machine is equipped with a Mitsubishi M80-A control (standard) for higher speed and accuracy. An internet interface (front mounted SD card slot & USB port device) is provided for increasing safety and convenience during machining.



Attentive in-process management, combined with rigorous quality inspection, equates to maximum operational dependability.



SPECIFICATION

| Item/Model | Unit | SV-50S | SV-65S | SV-76S | |
|------------------------|--|--------|---|---|---|
| Travel | Max. travel range of X/Y/Z | mm | 500x430x420 | 650x430x420 | 760x430x450 |
| | Spindle nose to table face | mm | 100~520 | 100~520 | 150~600 |
| Work Table | Table size | mm | 550x400 | 750x400 | 860x420 |
| | T-Slot (WxNo.xP) | mm | | 14x3x125 | |
| | Max. loading capacity | kg | 250 | 250 | 300 |
| Spindle | Spindle taper | | BT40 | | |
| | Spindle speed | rpm | 10,000rpm(D.D.S) | | |
| | Spindle motor | kw | 5.5/7.5 | | |
| Feed Rate | Rapid Traverse Speed of X/Y/Z | m/min | Mitsubishi: 48/48/48 Fanuc: 36/36/36 | Mitsubishi: 48/48/48 Fanuc: 36/36/36 | Mitsubishi: 36/36/36 Fanuc: 36/36/36 |
| | Max. cutting feed rate of X/Y/Z | m/min | 1~12 | | |
| | Servo motor of X/Y/Z | kw | Mitsubishi: 1.5/1.5/2.0B Fanuc: 1.6/1.6/3.0B | | |
| Automatic Tool Changer | ATC type | | Arm Type | | |
| | Tool capacity | pcs | 20T | | |
| | Max. tool diameter | mm | Φ 75 | | |
| | Max. tool length | mm | 200 | | |
| | Max. tool weight | kg | Avg:5 | | |
| | Max. tool diameter without adjacent tool | mm | Φ 150 | | |
| Other | Tool change time (T to T) | sec | 1.5 | | |
| | Machine dimension (LxW) | mm | 1650x2500 | 2150x2500 | 2000x2520 |
| | Machine height | mm | 2500 | 2500 | 2600 |
| | Net weight | kg | 2850 | 3000 | 3500 |
| | Total required power | kva | 15 | | |

*We reserve the right to modify the design and specifications without notice in advance.

STANDARD EQUIPMENT

- 10,000rpm direct-drive spindle
- Rigid tapping
- Spindle air blast device
- Fully enclosed splash guard
- Heat exchange for electrical cabinet
- Automatic lubrication system
- Spindle oil cooler
- Cooling system and coolant tank
- Work lamp
- Foundation bolts and blocks
- Tool box with tools
- Operation and maintenance manual
- Coolant flushing device
- Air gun and water gun

OPTIONAL EQUIPMENT

- 10,000/12,000rpm belt type spindle
- 12,000/15,000rpm direct-drive spindle
- 24,000/30,000/36,000rpm built-in spindle
- Y axis rear side screw type chip conveyor
- 4th axis rotary table
- Transformer
- Air conditioner for electrical cabinet
- Coolant through spindle 30/70 bar
- Tool length measurement

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SHINZAWA



SV-50S/65S/76S series

Vertical Machining Center

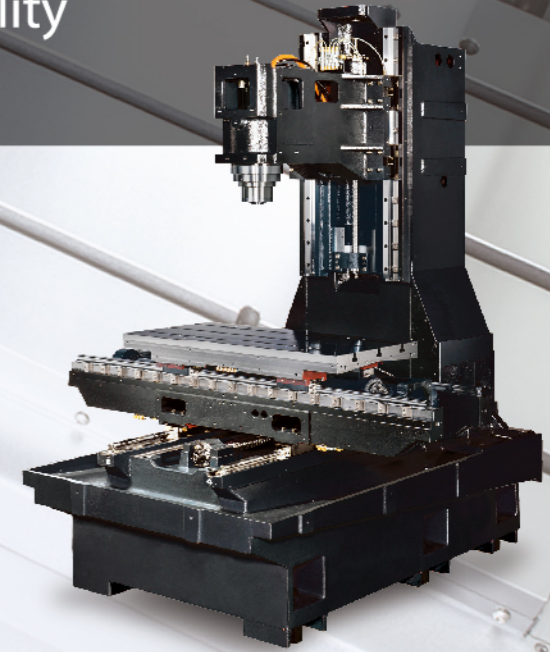
Reinforced Structural Design Exhibits Exceptional Cutting Efficiency and Stability
The Best Cost-Performance Choice



The vertical machining center integrates the features of high speed and maximum stability. The series of the machine enhances the structural design to assure the best dynamic and static stability. They are equipped with a 10,000 rpm high speed spindle, combined with rapid traverse on three axes making it the most valuable vertical machining center.

Perfect Structural Rigidity

- The stable and low-center-of-gravity machines base offers a solid foundation of for the entire machine.
 - The V-shape inner ribs provide long lasting dynamic and static accuracy.
 - Extra wide span between linear guideways exhibits exceptional stability to absorb cutting vibration; free from over hanging problems.
 - All structural parts are made from high tensile FC-300 cast iron, stress relieved and deformation free.
 - The box type construction features anti-deformation and anti-bending.
 - The A-shaped machine column firmly supports the ATC unit and the head stock.
- The design is capable of dealing with cutting force from axial and radius direction.



SV-50S/65S

Vertical Machining Center

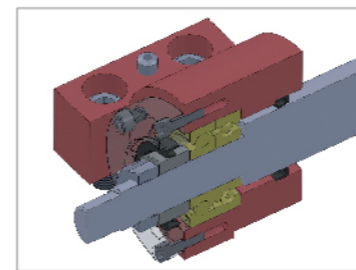


10,000RPM Direct-drive Spindle
(Standard Equipment)

- BT-40 spindle taper
- The acceleration/deceleration time for the direct-drive spindle is quickly accomplished in only 1~1.8 seconds. This greatly upgrades the machine efficiency.
- 12,000/15,000 rpm is optional.

Arm Type ATC
(Standard Equipment)

- The tool magazine can be fitted with BT-40 tool shank.
- The magazine body is manufactured from aluminum alloy for reducing the inertia load. It also features fast tool change and stable motion.
- The smooth cam-driven tool change mechanism takes only 1.5 seconds exchange time (T to T).



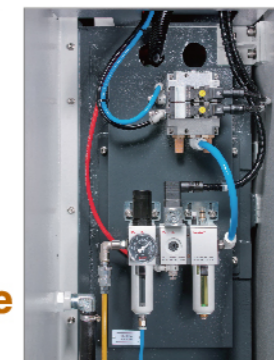
Anchored Ball Screws

- Both ends of ball screws are anchored on the machine by angular contact ball bearings, that features higher rigidity and stability.
- Pretensioned ball screws remove backlash and increase positioning accuracy.



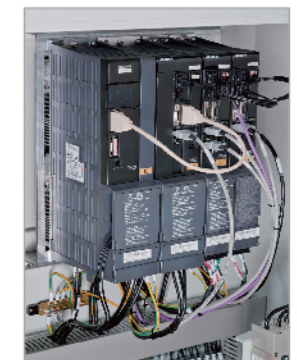
Spacious Interior Space

- Wide interior space features good ventilation, efficient chip evacuation. Two coolant flush motors are standard, with the coolant flushing rings inside the chip enclosure that is capable of removing heat source from the machine.
- Two pumps are independently controlled for spindle cutting and chip flushing.



Concealed Pneumatic Parts

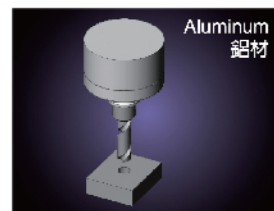
The pneumatic parts are centralized in a compartment to prevent them from bumping, while helping to keep the machine looking neat.



Servo Drive

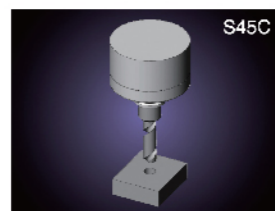
Increasing overall performance to achieve outstanding result of high speed and high precision cutting.

Cutting Capability



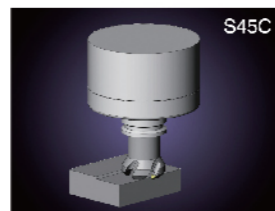
DRILLING
Max. Dia. Φ 32mm

Tool: Φ 32 driller
Spindle speed : 700rpm
Feedrate : 210mm/min



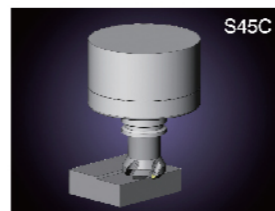
DRILLING
Max. Dia. Φ 26.5mm

Tool : Φ 32 driller
Spindle speed : 700rpm
Feedrate : 210mm/min
Drilling depth : 25mm/min



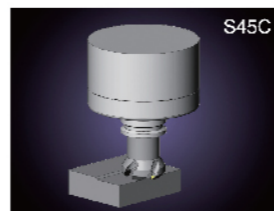
FACE MILLING
Chip Removal Rate 150cc/min

Tool : Φ 50 Face milling cutter
Spindle speed : 1500rpm
Feedrate : 1875mm/min
Milling width : 40mm
Milling depth : 2mm



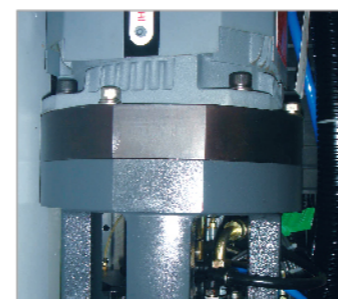
FACE MILLING
Max. Cutting Depth 4mm

Tool Φ 50 Face milling cutter
Spindle speed : 1200rpm
Feedrate : 600mm/min
Milling width : 40mm
Chip removal rate : 96 cc/min



TAPPING
M20

Tool: M20 taper
Spindle speed : 240rpm
Feedrate : 600mm/min
Tapping depth : 25mm



Optimized Spindle Head H/L Ratio

- The height-to-length ratio of spindle headstock is nearly 1:1, making it to realize the superior capability in radial and axial cutting resistance.
- Equipped with spindle oil cooler.
- Cooling device for spindle motor flange.

