Model SVG-6336A-F

50 Taper with Gearhead / 6,000 rpm
High Power Vertical Machining Center

Serial # N 461180032

The Sharp SVG series was engineered from the ground up for hard metal machining. This is a extremely rigid “C” frame design using hardened and ground box ways. All structural components are made of Meehanite casting with internal ribs running throughout each section. Precision hand scraping of each section provides near perfect alignment assuring long term accuracies.

The gearhead spindle is equipped with 35 hp, 6,000 rpm CAT 50 spindle.

The new Fanuc 0i MF control with color LCD is used along with all Fanuc motors and drives. For operator convenience, a remote jog handle is standard.

SVG-6336- AF Series Standard Features

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Machine Travels
- X = 63” , Y = 35.43” , Z = 27.56”

Worktable
- 70.87” x 31.5”

CNC Control
- Fanuc 0i MF, package 1
- 10.4” color LCD
- Remote jog handle (MPG)
- 1024 K program memory
- All Fanuc α (alpha) series motors & drives
- PCMCIA memory card slot
- M30 Auto Power Off
- Custom Macro B
- AICC 200 blocks look ahead)
- NANO Interpolation
- RS232 & Ethernet ports

Spindle
- Spindle taper: CAT 50
- Spindle motor: 35 hp
- Gear Head / 6,000 rpm
- Spindle gears by HAMADA
- Spindle orientation
- Spindle load meter
- Spindle air blast

40 Station Automatic Tool Changer (arm type)

Coolant System
- 148 gallon roll out coolant tank
- Flood coolant system
- **30 bar CTS prepped**
- **4th axis prepped, no drive and no motor**
- Flat belt chip conveyor

Machine Construction
- Hardened & ground 4 box ways on all axes
- All Meehanite cast iron structural components
- Precision hand scraping on all mating surfaces
- Full metal enclosure with removable side doors
- Full metal way covers
- Double anchored, pretensioned, double nut ball screws

Standard Accessories
- Auto-lubrication system with alarm
- Rigid tapping
- Halogen work light
- Alarm light (3 tier)
- Heat exchanger for electric cabinet

Standard Machine Specifications

Specifications		SVG-6336-AF
Work Capacity		
X axis travel	mm (inch)	1600 (63)
Y axis travel	mm (inch)	900 (35.5)
Z axis travel	mm (inch)	700 (27.56)
Spindle nose to table	mm (inch)	200 - 900 (7.9 – 35.4)
Spindle center to column	mm (inch)	850 (33.5)
Worktable		
Table area	mm (inch)	1800 x 800 (70.87 x 31.5)
Floor to table	mm (inch)	1067 (42)
Max. workpiece weight	kg (lb.)	2500 (5500)
T-Slot (Number x Width x Pitch)	mm (inch)	5 x 22 x 160 (0.2” x 0.87” x 6.3”)
Spindle		
Spindle taper		CAT-50
Spindle speed	rpm	30 ~ 6,000
Spindle motor: cont./30 min	kW (hp)	22/26 (30/35)
Spindle torque: 30 minutes	Nm (ft-lb)	579 (427) @430 RPM
Spindle motor model	Fanuc	α22/ 7000i
Transmission		Gear head
Low / high ratio		1: 3.5 / 1:1
Spindle bearing ID	mm (inch)	100 (39.37)
Spindle Lubrication		Grease
Spindle cooling		Chilled oil
Tool clamp force	kg-f (lb.-f)	1800±100 (3970 ± 220)
Automatic Tool Changer		
ATC type		Arm type
Tool capacity		40
Max. tool diameter	mm (inch)	110 (4.33)
Without adjacent tool	mm (inch)	200 (7.87)
Max. tool length	mm (inch)	300 (11.8)
Max. tool weight	kg (lb.)	15 (33)
Tool change time (tool to tool)	sec	2.5
Tool change time (chip to chip)	sec	8 ~ 9
Method of tool selection		Random - shortest path

Specifications		SVG-6336-AF
Motion		
Rapid traverse	m/min (ipm)	X/Y: 15; Z: 12 (X/Y: 590; Z: 472)
Cutting feed rate	mm/min (ipm)	1 - 6,000 (.04 - 236) / opt.: 1 - 10,000 (.04 - 394)
Transmission		Direct
Ball screw diameter / pitch: X/Y/Z	mm (inch)	50/50/50/ 10 pitch (1.97/1.97 /1.97)
Feed motor - Fanuc: X/Y/Z	Nm (ft-lb)	α22/α22/α30b 3000i
Axis feed thrust: X/Y/Z	kgf (lb.)	4429 (9764) / 30 minutes
Positioning accuracy*	mm (inch)	0.008 (0.0003) (300 mm length)
Repeatability accuracy*	mm (inch)	0.005 (0.0002) (300 mm length)
Guideways		
Type (all axis)		Hardened & ground box type w Turcite B
Way size / spacing (X axis)	mm (inch)	2) sets - 123 / 606 (4.84 / 23.86)
Way max size / spacing (Y axis)	mm (inch)	(4) sets - 120 / 1420 (4.72 / 55.91)
Way size / spacing (Z axis)	mm (inch)	(2) sets - 180 / 600 (7.09 / 23.6)
Coolant System		
Coolant tank capacity	L (gal)	500 (132)
Flood coolant pressure	kgf/cm2 (psi)	2.5 (35)
General		
Floor space	mm (inch)	W: 6850 (269.7) x D: 3770 (148.43)
Height	mm (inch)	3500 (137.8)
Weight	kg (lb.)	16,000 (35,200)
Operator door opening	mm (inch)	1700 (66.93)
Power Requirements		
Electrical	220V / 60 Hz	3 Phase / 35 KVA
Air		5 CFM @ 100 psi

** Proper foundation and environmental controls are required*

Fanuc 0i MF Control Included Functions

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- 10.4" color LCD display with tool path graphic
- 32 bit microprocessor
- PCMCIA Card Slot
- Keyboard type manual data input (MDI)
- Manual pulse generator
- Input/output interface (RS232C)
- Embedded Ethernet

Controlled axis
- 3 simultaneously controllable axes (4 max)
- Least programmable increment: 0.0001"
- Stored pitch error compensation
- Mirror image
- Inch/metric conversion / programming

Operation
- DNC operation with memory card
- MDI operation
- Sequence number search
- Program number search
- JOG feed
- Dry run
- Single block
- Manual reference position return

Interpolation functions
- Exact stop
- Circular interpolation
- Helical interpolation
- Skip (G31)
- High speed skip
- Reference position return (G27)

Feed function
- Rapid traverse override
- Feed per minute
- Feed per revolution
- Cutting feedrate clamp
- Automatic acceleration / deceleration
- Feedrate override
- Inverse time feed
- Jog override
- Automatic acceleration / deceleration
- AI Advanced Preview Control (20 blocks look ahead)
- NANO Interpolation (smooth path command in nanometers)

Program input
- Tape code: EIA, ISO Automatic recognition
- Absolute/incremental programming (G90, 91)
- Decimal point programming
- Coordinate system rotation (G92)
- Work Coordinate system preset G54-59 (fixture offsets)
- Work Coordinate system additional (P1 P48)
- Programmable data input G10
- Subprogram call - 4 folds nested
- Custom Macro B
- Canned cycles for drilling, boring, and tapping
- Scaling

Spindle speed function
- Spindle speed override
- Spindle orientation
- Rigid tapping

Tool function / Tool compensation
- Tool function T8 digits
- Tool offsets pairs (400 total offsets)
- Tool length compensation
- Tool offset memory C
- Cutter Compensation C
- Tool Length Measurement
- Tool life management

Editing operation
- Part Program storage length: 512 Kbyte
- Number of registrable programs: 400
- Program protect
- Background Editing
- Extended part program editing

Setting and display
- Status display
- Clock function
- Current position display
- Self diagnostic functions
- Run hour and parts count display
- Alarm display
- Alarm history display
- Help function
- Actual cutting federate display
- Periodic maintenance screen
- Trouble diagnosis

SVG-6336-AF

SVG-6336-AF	**50 Taper**	**$ 255,890.00**

General Notes Equipment, specifications and materials are subject to change until order is accepted by Sharp Industries. Pricing is valid for 30 days.

Delivery: If not in stock, delivery lead time will be verified by the factory after receipt of your written, firm purchase order.

F.O.B.: Port of Entry, Long Beach, Ca. U.S.A.
Sharp Industries responsibility ceases when delivery is made to the carrier. Any claim for loss and/or damages must be made by the purchaser against the carrier.

Terms: Sharp Industries Standard Terms & Conditions will apply.
All factory special order machines require the following: End user purchase order to be issued to Sharp Industries as the *Seller.*

- 30 Percent (30%) down payment with your purchase order.
- 60 Percent (60%) prior to shipment.
- 10 Percent (10%) balance due net 30 days after final acceptance.

Warranty: Sharp Industries ***Limited Warranty*** will apply.

Prices and specifications subject to change without notice

SVG-6336-AF options, factory order	
Fanuc CNC Options	
2MB Part Program Storage - Fanuc installation required	$1,650.00
Fanuc Installation Fee: One day/one machine. Price may vary because of destination	$750.00 to $1,250.00
Coolant Through The Spindle Pump Option**	
Cooljet model T 20, 8 gpm at 280 psi fixed flow, 40 G tank with 10 micro filter assembly and feeder pump installed at Sharp	$7490.00

Coolant Through The Spindle Pump Option**	
Chip Balster cooling system M 30-70, 1000 psi, 8 gpm, 50 G tank installed at Sharp	$ 10,075.00
Chip Balster JV-40, 2-10.5 gpm, 1000 psi, variable volume installed at Sharp	$ 17,755.00
Rotary Table Options**	
Tsudakoma 6” rotary table: Model RWE 160R (Includes motor, amplifier, cables and 1 year warranty).	$ 17,395.00
Tsudakoma 7.8” rotary table: Model RWA 200R (Includes motor, amplifier, cables and 1 year warranty)..	$ 25,960.00
Tsudakoma 9.8” rotary table: Model RWA 250R (Includes motor, amplifier, cables and 1 year warranty)..	$ 27,995.00
Tsudakoma 12.6”” rotary table: Model RWA 320R (Includes motor, amplifier, cables and 1 year warranty)..	$ 30,525.00
Tsudakoma 15.7” rotary table: Model RWA 400R (Includes motor, amplifier, cables, booster and 1 year warranty)..	$ 50,380.00
Nikken 7” Rotary Table Package: Model CNC-180FA-M (Includes Fanuc motor, cables & 1 year warranty)	$23,850.00
Nikken 8” Rotary Table Package: Model CNC-202FA-M (Includes Fanuc motor, cables & 1 year warranty)	$26,750.00
Nikken 10” Rotary Table Package: Model CNC-260FA-M (Includes Fanuc motor, cables & 1 year warranty)	$ 40,950.00
Nikken 12” Rotary Table Package: Model CNB-302FA-M (Includes Fanuc motor, cables & 1 year warranty)	$43,680.00
Nikken 15.8” Rotary Table Package: Model CNC-401FA-M with 6” center bore (Includes air booster for hydraulic brake, Fanuc motor, cables & 1 year warranty)	$ 59,430.00
4th axis rotary table installation at Sharp	net $ 5000.00

4th axis rotary table installation at customer site	net $ 9000.00

Measurement system, factory order	
Renishaw tools measurement, TS-27R	$ 3050.00
Renishaw probing, OMP 60	$ 11,800.00

** *Prices do not include labor, traveling or shipping charges*

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Sharp standard terms and conditions will apply.

Sharp Industries Inc. Limited Warranty

Sharp Industries warrants to the original purchaser, other than a purchaser for resale, (the "Purchaser") that Sharp Industries machine tools shall be free of defects in materials and workmanship. For a period of one (1) year from completion of installation, or for a period of fifteen (15) months from date of shipment, whichever is earlier, Sharp Industries will, at its sole and exclusive discretion, either replace or repair any machine or part thereof defective in workmanship or material, at no charge to the Purchaser.

All warranty repairs must either be performed by or authorized by a Sharp Industries Authorized Service Organization. To obtain warranty service, Purchaser must contact their local Sharp Industries Authorized Service Organization. Purchaser must provide verification of the date of delivery/installation when requesting warranty service (dated installation report). Ground freight charges (UPS regular or common carrier truck) for all warranty replacement parts are paid by Sharp Industries. If machine is not operational, Sharp Industries will pay next-day air shipment charges for necessary parts weighing 100 lbs. or less. Materials or parts alleged to be defective shall be returned to Sharp Industries, at Sharp Industries' request, transportation charges prepaid. After the warranty repair or replacement of a defective part, Sharp Industries' warranty for such part shall continue for ninety (90) days or for the remainder of the original Limited Warranty, whichever is longer.

WARRANTY LIMITATIONS

This warranty shall remain in effect only if the machine is used and maintained in accordance with all operating and maintenance instructions set forth in the manuals and instruction sheets furnished by Sharp Industries. Sharp Industries shall have no liability to repair or replace defective parts until the Purchaser has fulfilled its payment obligations. No allowance will be made for repairs or alterations made without Sharp Industries' prior written consent or approval. The limited warranty provided by Sharp Industries excludes the following:

1. Damage, malfunction, or failure caused by or resulting from improper maintenance, misuse, neglect, accident or any other cause beyond the control of the Sharp Industries.

2. Damage, malfunction, or failure caused by modification of the machine (mechanical or electrical) without written authorization by Sharp Industries.
3. Damage, malfunction or failure caused by installation or use of accessories or peripherals not purchased through or authorized in writing by Sharp Industries.
4. Paint, batteries, filters, fluids, fuses, light bulbs, or any commonly expendable item.
5. Damage to machines and/or components while being transported from Sharp Industries' warehouse or facility to destination.
6. Accessories or peripherals not manufactured by Sharp Industries, which shall be subject only to whatever warranty that is supplied by the manufacturer of such product.
7. CNC control, spindle and servo motors, spindle and servo drives, which are covered by a two (2) year manufacturer warranty.

No person, agent, distributor, dealer or company is authorized to change, modify or amend the terms of this Limited Warranty in any manner. Sharp Industries makes no warranties, guarantees or representations, express or implied with respect to the machine tool, or parts thereof, except to the extent such warranty is set forth herein. The equipment covered does not necessarily comply with any codes or standards unless specifically quoted, ordered, and so accepted.

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