



*V*ERTICAL MACHINE CENTER

High precision , High Efficiency , High Quality



Linear Guideway Series

AHV-850L / AHV-1020L / AHV-1300L / AHV-1500L



● AHV-850L / AHV-1020L



● AHV-1300L / AHV-1500L



THE LEADER IN QUALITY AND RELIABILITY
~SINCE 1973~

OPTIMAL STRUCTURE DESIGN

High Rigidity! Lifetime Stability!

- The major structures are manufactured from Meehanite cast iron, stress relieved and combined with scientific rib reinforcement to ensure deformation-free operations.
- Increased width on the column bottom with box-type structure provides maximum stability especially when performing high speed cutting.
- Linear ways on three axes assure high feed rates and extremely smooth motion.
- Extra wide span between linear ways greatly increases machine stability.



Linear Guide Way

The machine employs 45 mm. wide ball-type linear guide ways.



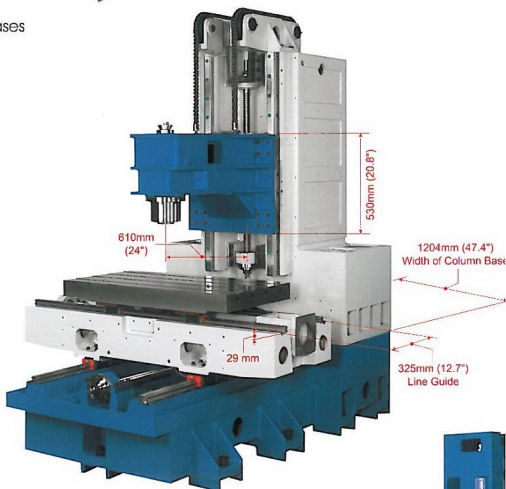
Belt Drive Spindle

- Choice of spindle speeds 8,000, 10,000 or 12,000 rpm.
- Spindle taper BT-40.



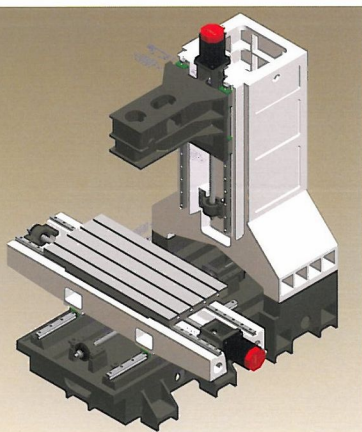
Direct Drive Spindle

- Choice of spindle speeds 10,000, 12,000 or 15,000 rpm.
- Spindle taper BT-40.

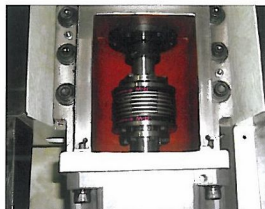


• AHV-850L / AHV-1020L

- Choice of 8,000, 10,000, 12,000 or 15,000 rpm high speed spindles are designed for high speed machining requirement.
- High precision class C3 ball screws feature outstanding vibration dampening capability for high precision machining.
- Extra wide column bottom and base ensure superior stability during high speed machining.
- Compacted and simplified machine structure for space saving.
- Increased Y-axis travel for increasing working capacity (models AHV-1300L / 1500L)



AHV-850L / AHV-1020L / AHV-1300L / AHV-1500L



Directly Coupled Servomotors

The three axes ball screws are directly coupled to servomotors through backlash-free couplings. This ensures dependable positioning accuracy. High precision class C3 ball screws are preloaded to eliminate thermal strain.



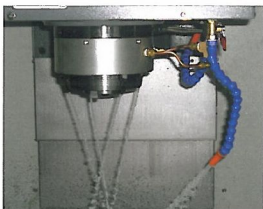
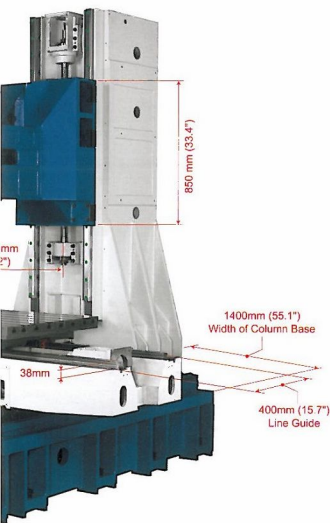
Carousel Type Magazine

The carousel type magazine is standard equipment. It carries 16 tools for various types of machining applications. Fixed type tool selection for quick tool changing that reduces non-cutting time.



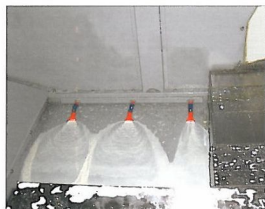
ARM Type Magazine (Opt.)

The magazine is driven by a precision cam for rapid and stable tool change motion. Tool loading capacity provides 20 or 24 tools to choose from. Bi-directional random tool selection provides quick tool changing that reduces non-cutting time.



Spindle Splash Ring (Opt.)

The spindle splash ring is available only for models with arm-type magazine. The device not only effectively removes chips on workpiece but also increases workpiece cooling efficiency.



Coolant Flushing Device (Opt.)

Three coolant nozzles are provided on both sides of the table featuring high pressure flushing to remove chips from the table.



4th/5th CNC Rotary Table (Opt.)

The 4th / 5th CNC rotary table features high positioning accuracy and maximum stability during cutting. It is ideal for various types of workpiece machining.

Specifications

NOTE: Specifications are subject to change without prior notice.

MODEL	Unit	AHV-850L	AHV-1020L	AHV-1300L	AHV-1500L
3 AXES TRAVEL					
X axis travel	mm	850	1020	1300	1500
Y axis travel	mm	550	550	750	750
Z axis travel	mm	580	580	700	700
Distance from table surface to spindle nose	mm	120 - 700	120 - 700	120 - 820	120 - 820
TABLE					
Table area	mm	1020 x 550	1200 x 550	1420 x 750	1650 x 750
Max. load of table	kgs	600	800	1000	1000
T-slot	mm	4 x 18 x 125	4 x 18 x 125	5 x 18 x 125	5 x 18 x 125
SPINDLE					
Standard speed 8000 RPM					
Spindle taper	type	BT-40	BT-40	BT-40	BT-40
Spindle speed	rpm	8000 / 10000	10000 / 12000 / 15000	8000 / 10000	10000 / 12000 / 15000
Spindle drive	type	Belt type	Direct Drive	Belt type	Direct Drive
Spindle motor	kw	5.5 / 7.5	5.5 / 7.5	7.5 / 11	7.5 / 11
Spindle cooling	type	Oil cooler (std.)	Oil cooler (std.)	Oil cooler (std.)	Oil cooler (std.)
FEED RATE					
Rapid traverse (X,Y)	m/min	30	30	30	30
Rapid traverse (Z)	m/min	20	20	24	24
Cutting feed rate	mm/min	1-15000	1-15000	1-15000	1-15000
3 Axes motor output (X,Y,Z)	kw	1.8 / 1.8 / 2.5	1.8 / 1.8 / 2.5	4.0 / 4.0 / 7.0	4.0 / 4.0 / 7.0
A.T.C.					
Magazine type	type	Carousel	Arm	Carousel	Arm
Tool magazine capacity	pcs	16	24	16	24
Max. tool diameter	mm	100 / 150	80 / 150	100 / 150	80 / 150
Max. tool length	mm	250	250	300	300
Max. tool weight	kgs	7	7	7	7
Tool selection	type	Fixed-type	Random	Fixed-type	Random
OTHER					
Power consumption	KVA	20	20	40	40
Floor space (LxWxH)	mm	2940 x 2180 x 2350	2940 x 2180 x 2350	3720 x 2640 x 3100	4100 x 2640 x 3100
Machine weight	kgs	6200	6800	10000	11000

Standard Accessories

- Spindle oil cooler unit.
- Full splash guard.
- Cutting coolant unit.
- Heat exchanger in control box.
- Auto power off.
- Auto lubrication system.
- Air blast through spindle.
- Work lamp.

- Tool box.
- Carousel type ATC. (16 tools).
- Rigid tapping.
- Mechanical, electrical operation manuals.
- RS-232 interface.
- Screw type chip conveyor.

Optional Accessories

- Direct drive spindle 10,000, 12,000 or 15,000 RPM.
- Belt drive spindle 10,000 or 12,000 RPM.
- Rotary table 320 or 250 (4th axis; including manual tailstock, oil tank, motor and driver)

- 4th axis oil tank
- 4th axis motor with driver
- Arm-type ATC (24 tools)
- Oil skimmer.
- Coolant gun (motor), rear coolant flushing device.
- Link-chain-type chip conveyor.

- Coolant through tool holder.
- Spindle splash ring. (arm-type)
- Linear scales for 3 axes.
- Coolant through spindle center with filter.
- Deep hole drilling stop.
- Tool probe system.

Wider Selection Controllers



SIEMENS
840D / 810D



HEIDENHAIN
TNC - i530



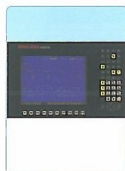
SELCA
S4045 / S4045PD



FANUC
Oi - MC / 18i - MB



MITSUBISHI
M64S / M65S / M70



ANILAM
6000i

FREJOOTH INTERNATIONAL LTD.

8F #501, SEC.2, WU CHUAN W. RD., TAICHUNG 408, TAIWAN, R.O.C.
TEL: 886-4-23816977 FAX: 886-4-23813584, 23813769

E-mail: mail@frejoth.com.tw web-site http://www.frejoth.com.tw
www.acra.com.tw