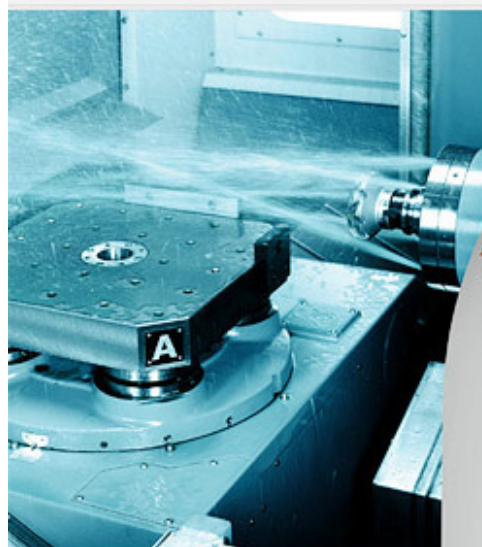


Column Moving Horizontal Machining Center

NEW!

The Best Value for Automotive,
Motorcycle and General Precision Parts Machining.

LCH-500



Linear Way



- Fast tool change
- Fast pallet change
- Rapid traverse rate
- High metal removal rate 330 cc/min
- Compact splash guard design
- Synchronized ATC and APC motions for increased efficiency
- Rigid 4th. Axis allows for heavy duty machining and high accuracy positioning
- User-friendly operation

Machine Specifications

ITEM	MODEL		LCH-500
CAPACITY		Unit	
X axis travel	mm (in)		700 (27.56)
Y axis travel	mm (in)		610 (24)
Z axis travel	mm (in)		610 (24)
Distance form table top to spindle centre	mm (in)		55-665 (2.17-26.18)
Distance form table centre to spindle end	mm (in)		175-785 (6.90-30.91)
TABLE			
Pallet size (LxW)	mm (in)		500x500 (20x20)
Max. table load weight	kg (lb)		500Tum
SPINDLE			
Spindle speeds	rpm		10000
Spindle nose (nominal size, No.)			7/24 Taper, No.40
Spindle bearing inner diameter	mm (in)		70 (2.75)
FEEDRATE			
Rapid traverse X,Z/Y	m/min (IPM)		32/28 (1260/1100)
Max. cutting feedrate	m/min (IPM)		1-10 (393.7)
A.T.C.			
Tool storage capacity	pcs		40
Max. tool diameter (with adjacent tools)	mm (in)		100 (3.9)
Max. tool length	mm (in)		300 (11.81)
Tool change time (T-T/C-C)	sec		3.5/7
A.P.C.			
Number of pallets	pcs		2
Pallet changing time	sec		12
MOTORS			
Spindle motor (30min/cont) FANUC	kw (HP)		18.5 (24.8)
X/Y/Z axis feed motors	kw (HP)		7/4/4 (9/5.4/5.4)
MACHINE SIZE			
Height of machine	mm (in)		2980 (117.3)
Floor space (LxW)	mm (in)		3320x3800 (130.7x150)
Total machine weight	kg (lb)		11500 (452.7)
Power requirement	KVA		55
Computer control	FANUC		0i-MC

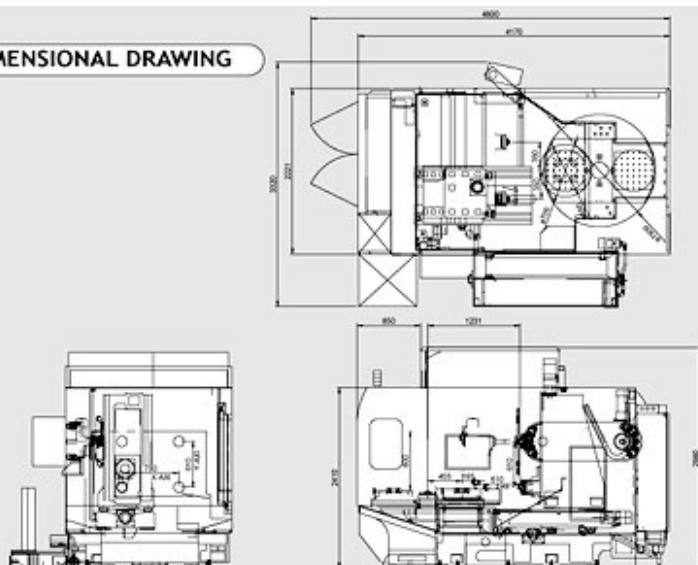
STANDARD ACCESSORIES

- RS232 interface
- Right tapping
- Fully enclosure guarding
- Chip conveyor (auger type)
- Work light
- Alarm lamp
- Heat exchanger
- Remote MPG
- Coolant system including coolant tank
- Lubrication system
- Leveling screws and pads
- Maintenance tool box
- Spindle oil collar (chiller)
- Rotary table 0.001"
- 10,000 RPM spindle
- Air purge
- Coolant gun
- Auto counter for work piece
- Arm A.T.C. with 40 tool magazine
- Auto power off

OPTIONAL ACCESSORIES

- 8,000RPM spindle
- 12,000 RPM spindle
- C.T.S. preparation
- Tool tip air blow system
- Linear scale
- Tool overload detection
- Auto tool length measurement
- Automatic workpiece measurement
- Simple tool life management
- Chip conveyor outside machine & chip bucket
- Oil skimmer
- Rotary table preparation
- Manual tail stock for rotary table
- Through hole drill kit
- Auto door
- DNC link software
- Arm A.T.C. with 24 tool magazine
- Arm A.T.C. with 30 tool magazine
- Air conditioner in cabinet
- Oil collector
- Programmable coolant nozzle

DIMENSIONAL DRAWING



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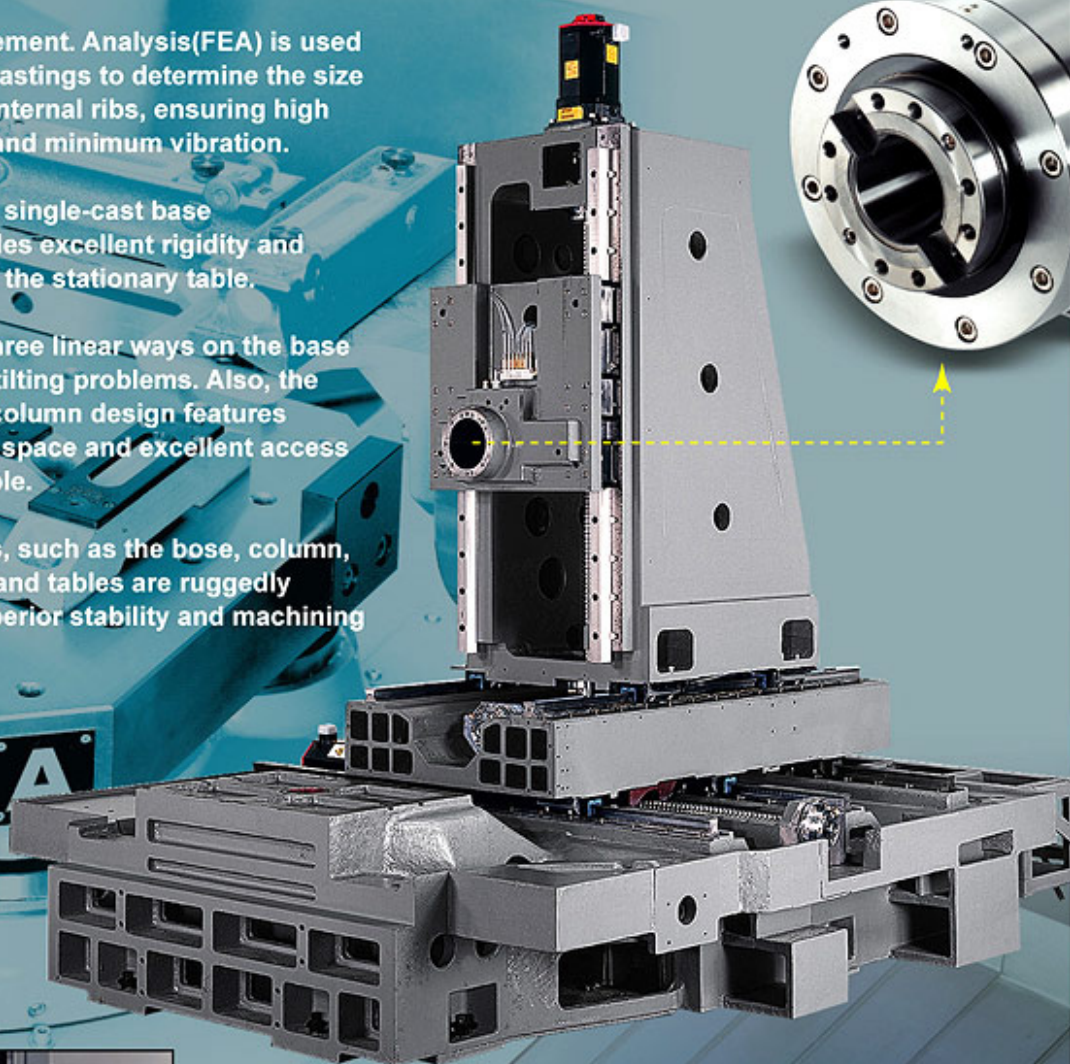
www.leadwell.com.tw

※ All performance are based on 220V/3PH/60HZ. Specification are subject to change without notice.

2006.07

Leadwell Optimum Structure Assures Top Stability

- Leadwell uses only top quality well-ribbed castings.
- Advanced Finite Element Analysis (FEA) is used for analyzing new castings to determine the size and location of all internal ribs, ensuring high torsional stiffness and minimum vibration.
- The rigid T-shaped, single-cast base construction provides excellent rigidity and avoids overhang of the stationary table.
- Special design of three linear ways on the base eliminates column tilting problems. Also, the compact traveling column design features relatively less floor space and excellent access to the machine table.
- The structural parts, such as the base, column, saddle, headstock and tables are ruggedly constructed for superior stability and machining accuracy.



High Machine Rigidity

The long term accuracy and superior stability for heavy duty machining results from the rigid and stable machine structure. That's why Leadwell's R&D department has applied high-tech Finite Element Analysis, combined with extensive experience, to thoroughly analyze and design the machine structure. Our aim is to assure exceptional heavy cutting capabilities, outstanding stability and deformation-free for many years, for each Leadwell machine.

The Power The precision The Efficiency

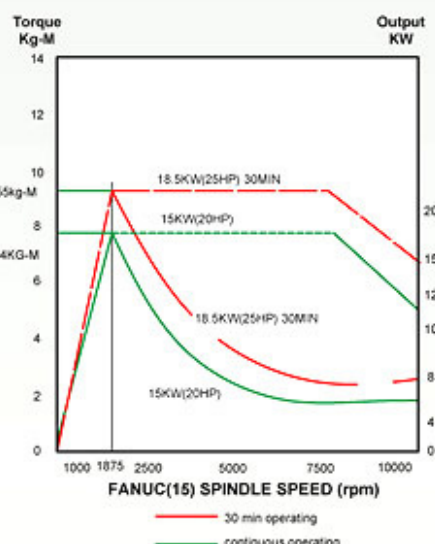
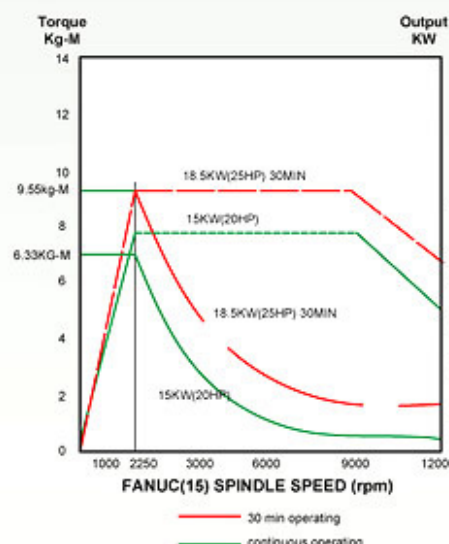


Precision Spindle Minimum Vibration in 3μ

The spindle is driven by a powerful Alpha 15 motor featuring high torque output. Unique spindle stability is controlled in 3μ for any speed. The four gripper tool clamping design assures extremely stable clamping force.

10,000 or 12,000 R.P.M. Spindle Speed

The spindle provides a maximum speed of 10,000 R.P.M. as standard. Upon request, a belt transmitted 12,000 R.P.M. spindle is available as optional.

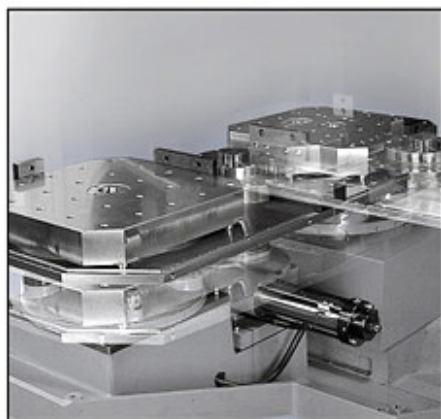


Two-Pallet, Swing-type APC for the efficiency Minded

Swing-type APC 2-Pallet Configuration

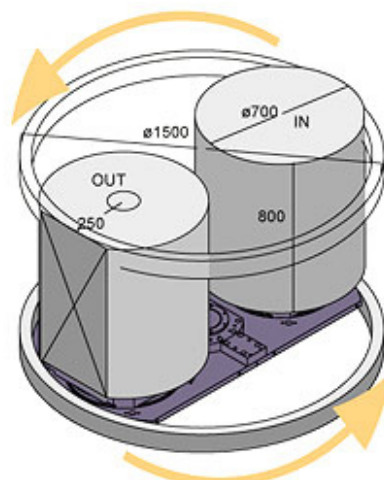
The LCH-500 has a standard 2 pallet, swing-type changer system. The lead position at the front of the machine allows for easy loading and unloading of workpieces.

- The pallets are positioned and clamped to the table with four precision taper cones to ensure accuracy and rigidity.
- During the pallet changing cycle, compressed air is blown through the cones to clean the clamping surfaces, removing chips and coolant. This air assures pallet location accuracy and long component life.
- The heavy duty APC provides 1,000 kgs loading capacity on each pallet.
- Unmatched Chip Removal Design
- A powerful chip flushing channel is equipped on both sides of Y-axis to prevent chips from entering into Y-axis linear guideways and transmission mechanism.



Accurate Table Positioning

The table is positioned and clamped by extra-large male and female cones thereby assuring high accuracy jointing and excellent rigidity. Additionally, an air leakage sensor is provided to ensure secure clamping. The swing table is fully interchangeable with the pallet.



Perfected Chip Guards and Disposal

Coolant Gun

- The powerful coolant gun is used for efficient cleaning and preventing chips from jumping into spindle.



Air Gun

- Furnished as a standard accessory, this air gun is used for efficient cleaning.



Chip Removal in Cutting Area

- The chips drop directly the cutting area thereby preventing machine heat growth due to chip deposition and erroneous motion.

Inclined Metal Ramp

- The CE certified, fully enclosed splash guard, combined with the inclined metal ramp, exhaust chips out of the machine thoroughly and efficiently.
- This prevents machine parts from being damaged.
- The chip curtain is equipped at both sides of X-axis and synchronized telescopic guards at bottom.

Chip Augers

- Leadwell's simple and efficient design uses chip augers on the base of the machine and provides high volume coolant to wash the chips from the work area. The auger moves the chips into the disposal container, which eliminates the need for an operator to manually remove chips.
- A safety foot step is provided in the machine for added safety for the operator or maintainece.

Directly Coupled Servo Motor

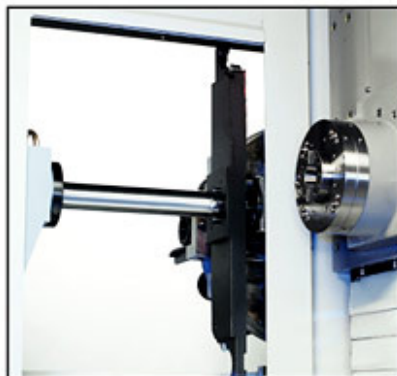
- The servomotors are connected to the ball screws with rigid shaft couplings. These couplings ensure that, even under severe loading from sharp machining, precise interpolation is achieved. This design is superior to both belt driven and flexible shaft coupling designs (with Pre-tension).



Quality Features Give You Better Quality Machining

Side Mounted ATC

The compact ATC is mounted at the side of the machine base for reducing packing volume and saving freight.



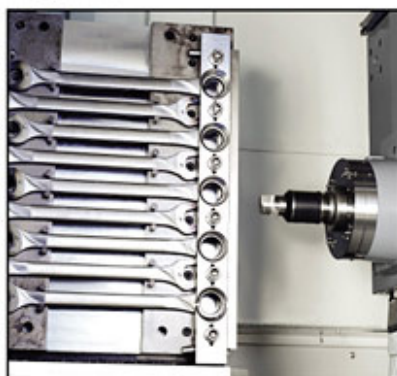
Coolant Through Ball Screw (Std.)

The cooling oil is circulated through the three axes' ball screws. Ball screws are pre-tensioned and combined with the use of double-nuts to reduce thermal strain and keep backlash to a minimum. Extremely smooth motion is assured, even under rapid traverse of 40 meters per minute.



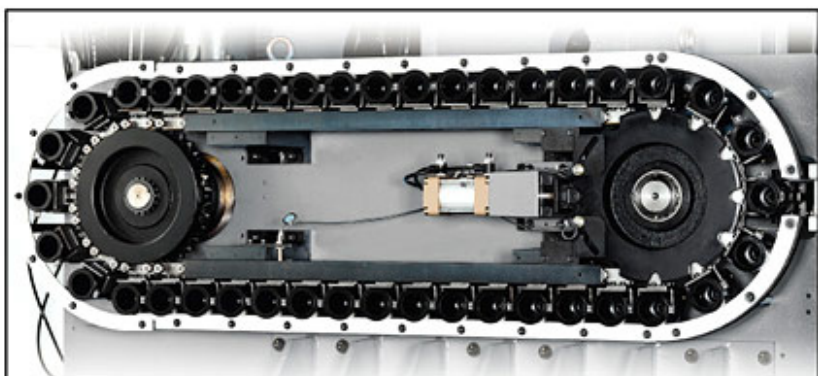
Chip Guard on Magazine

The auto door for the tool magazine completely prevents chips from damaging the magazine.



Chain-type Magazine

The LCH-500 is equipped with a 40 tool chain-type magazine combined with an arm-type tool change system. Fast tool change can be accomplished in 3.5 seconds (tool to tool) and 7 seconds (chip to chip).



Controller

- Controlled axis
- Simultaneously controlled axes
- Least input increment
- Emergency stop
- Mirror image
- Follow up
- Servo off
- Backlash compensation
- DNC operation
- Manual reference position return
- Exact stop
- Rapid traverse override
- Automatic acceleration / deceleration
- Override cancel
- Tape code: EIA RS244/ISOB40
- Label skip
- Optional block skip
- Decimal point programming
- Rotary axis designation
- Automatic coordinate system setting
- Workpiece coordinate system
- Programmable data input
- Rigid tapping
- Tool function
- Cutter compensation C
- Canned cycles
- Background editing
- Status display
- Clock function
- Self-diagnosis function
- Alarm display
- 8.4" color TFT
- Part program storage length: 640M
- Chinese language display
- HPCC (18i-MB/OPT)
- NURBS interpolation (18i-MB/OPT)
- Data service & CF card
- 4th Rotary
- 10.4" color TFT (0i-c/18i-MB)
- Tool length and broken measurement

