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利高機械
LICO MACHINERY



利高機械工業股份有限公司
LICO MACHINERY CO., LTD.



感謝各位多年來的支持與愛護！

利高機械公司自1978年成立，一直是以生產CNC電腦車床及CAM凸輪式自動車床為主，至今我們已多次獲得「台灣精品獎」以及國家級創新研發獎，而且我們的銷售亦遍佈世界五十餘國，廣受各界好評。

我們秉持「品質至上·永續經營」的理念，不斷的提昇技術及服務品質，提供最佳的售前加工方案及完善的售後服務，更可依客戶需求訂製完全加工之整廠設備，進而為客戶創造最佳利潤，利高的用心，絕對讓您滿意。

Portrait

LICO Machinery Co., Ltd., established in 1978 under the leadership of president Mr. Hank Lin, is well known for manufacturing turning machines ranging from industrial cam operated single spindle automatic lathes to technical CNC turning centers. These machines are designed for the metalworking sector and have been adapted by various industries such as aviation, vehicles, computers, plumbing fittings, optical instruments and others. Today, LICO lathes become popular across the world thanks to in-house staff and satellite-contractors working in harmony with the management board.



ISO 9000

HANK LIN
PRESIDENT



利高機械 · 遍佈全球！
LICO MACHINE , ACROSS THE WORLD!

LNT D-SERIES

CNC MultiSlide Automatics: **NET36**

LNT D-SERIES

CNC MultiSlide Automatics: **NET36**

The Newest Generation of Automatic Bar Machines

Better Than Traditional Cam Operated Single Spindle Automatics Flexible Via CNC Technology



Machining Samples

The LNT D-SERIES automatics are designed for the metalworking sector. It has been adapted by various industries such as aviation, vehicles, computers, plumbing fittings, optical instruments and others. With much wider materials choice, not only free cutting steel, brass, aluminum, but also alloy steel, stainless steel can be machined.

An appropriate production proposal with production rate defined by tool arrangement, cycle time and attachments can be offered before your purchasing.

LICO, A leading manufacturer of automatics in Taiwan, Recently announced a newly developed automatic bar machine. "The **real** CNC MultiSlide Automatics" models **LNT36 D-SERIES**. They combine the advantages of conventional cam-operated automatic lathes with modern **PC-based** multi-axis CNC controller with both bar chart page and common CNC programming, provides fast set up and easy operation for both experienced operators and new comers.

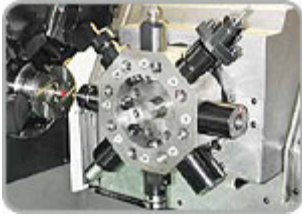
The machine comprises 4 rugged infeed or compound slides and a non-driven (8ST) **8-pos. turret on compound slide**. They permit longitudinal turning, complex contouring, thread chasing, by simple carbide inserted tools for O.D. work as well as drilling, boring, threading, recessing and tapping for I.D. conventional form tool can be used.

Optional accessories, such as PartsCatcher, Chip Conveyor, Workpiece Belt Conveyor and available with various brands Automatic Bar Feeder.

During the operation, there are 3~5 tools overlapping and working simultaneously, thus dramatically reducing and optimizing cycle times as well as increasing machining efficiency tremendously. On larger runs they are more economic than cam-operated automatics. On medium quantity runs they beat CNC lathes down.

LNT D-SERIES

CNC MultiSlide Automatics: NET36



High speed, high precision indexing turret

The 8-position tool turret ensures high repeated positioning accuracy and rigidity. Rapid indexing time from 0.4 sec. to 1.2 sec, The tool disc has a built-in coolant nozzle that is directed straight to the tool tips.

The cabinets on the top side and heat-exchanger ensure the temperature to be very low for the electronic components to adapt and environment. The wiring is very simple, clean and neat easy for maintenance.

The machine base has built in large coolant tank and ample chip volume for easy collection and remove for easy collection and removal. Automatic lubrication system, hydraulic system, high and low coolant pumps are all attached on the machine. So, it is compact, easy and convenient to move.



The LICO eM515A2 PC-based CNC control system was tailor made for LNT D-SERIES series Multi Slide Automatics.

Simultaneous max. 15-axis and 5-channels are available. The concept of programming is very similar with to cam automatics and common CNC lathes. It's very easy and friendly for users.



Bar Feeder Interface is standard equipment, several automatic bar feeders can be selected to connect with the LNT D-SERIES automatics.

Combination Examples:



LNT D-SERIES

CNC MultiSlide Automatics: NET36

Technical Data:

Model	LNA 36 D-SERIES
Unit	Metric (Inch)
CAPACITIES	
Collet bar capacity, dia.(through bore)	Ø36 (1.42")
Max. turning length	120 (4.72")
SPINDLE	
Center height of spindle (approx.)	1,000 (39.37")
Collet chuck type	F42
Power of spindle motor	5.5/7.5KW(7.5/10HP)
Max. spindle speed	6,000rpm
COMPOUND SLIDE	
Cross slide travel(X-axis)	60mm(2.36")
Longitudinal slide travel(Z-axis)	100mm(3.94")
Type of tool shank	Ø25.4MM(1") ; ϕ16MM(ϕ5/8")
Rapid traverses, X-axis and Z	15 M/min
Working feeds, X-axis and Z	5 M/min
Resolution	0.001mm (0.0001")
TOOL TURRET SLIDE	
Number of tool positions	8
Type of tool shank	Ø25.4MM(1") ; ϕ16MM(ϕ5/8")
Cross slide travel(X-axis)	+ 10mm(0.4")/ - 80mm(3.15")
Longitudinal slide travel(Z-axis)	165mm(6.5")
Indexing time	0.4 sec/ 180° -1.2sec
MACHINE SPACE, WEIGHT and POWER REQUIREMENTS	
Overall dimension (LxWxH)	2,000 x 1,260 x 1,650 (79"x51"x65")
Machine weight	2,500 kg(5,500 lb)
Hydraulic tank capacity	30 L
Hydraulic pump motor	1 kw
Coolant tank capacity	150 L
Coolant pump motor	0.5 kw
Lubrication capacity	2L, 10cc/15min
Total power required (Mitsubishi)	15kVA

LICO eM515A2 PC-Based CNC control

- * Simultaneous 15-Axis/ 5 channels (Max. 5-set X/Z)
- * Concurrent bar chart display
- * Tool path tracing & tool nose radius compensation
- * Automatic chamfering & corner rounding
- * Constant surface speed control
- * Thread chasing & multiple canned cycles

Optional Accessories:

1. Spindle-collet chuck F48 (Max. Ø42mm)
2. Automatic bar feeder ABF
3. Chip conveyor with cart (screw type) CCS
4. Workpiece belt conveyor WBC
5. Smoke collector SC

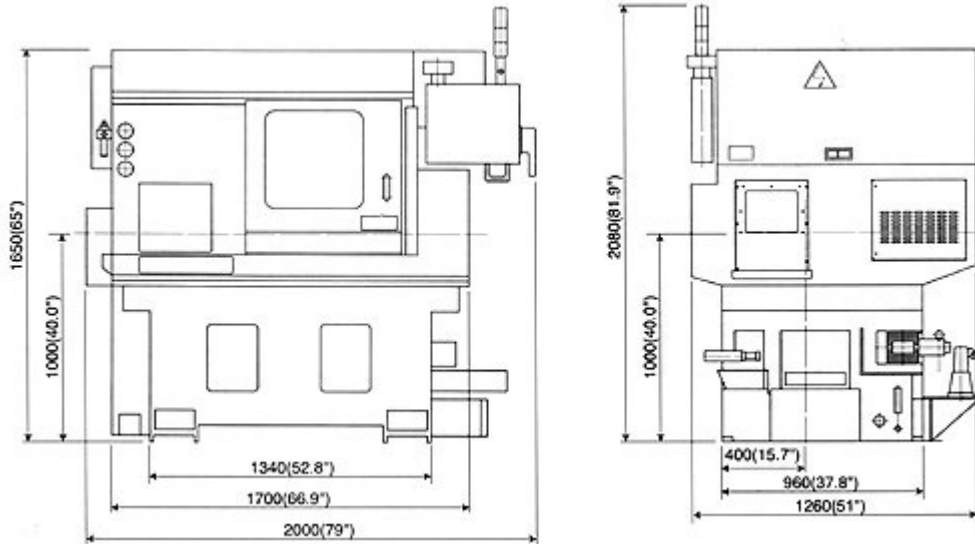
Standard Equipment:

1. Spindle-Collet Chuck F42 (Max. Ø36mm)
2. 8-Pos tool turret (non-driven) 8ST
3. Air blow, coolant & hydraulic system
4. Automatic lubrication system
5. Bar feeder interface
6. Front door interlock and work lamp
7. Tool box and tool kits
8. Control cabinet heat exchanger

LNT D-SERIES

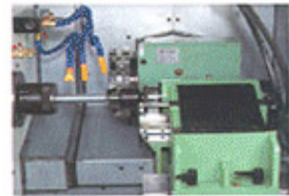
CNC MultiSlide Automatics: NET36

Dimensions:



公司沿革 Company Profile

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| 1978 利高機械工業股份有限公司正式在九月三日於桃園成立。 | 1978 LICO machinery co. was founded on Sep. 3, in Taoyuan by Hank Lin, Ray Cheng, Vic Lin, Knoll Chiu and other partners. |
| 1981 首次外銷單軸自動車床至美國及日本。 | 1981 LICO first exported single spindle automatic lathe to America and Japan. |
| 1984 利高機械首次參加馬來西亞機械展，積極拓展東南亞業務市場。 | 1984 LICO attended Mex 1984 machine show at Kuala Lumpur, Malaysia, and set-up a sales net in the South-East Asian market. |
| 1990 成立利根機械於潭子加工區。
成立美國利寶高公司，除銷售原有設備外，並銷售汽車零件以服務美國市場。
研發CNC多滑軌自動車床。 | 1990 LICO invested and set-up a new company in the Tai-Chung Export Processing Zone (Taiwan)--Likon Machinery Co., Ltd. LICO invested and set-up a new company with LIPO in Texas, U.S.A. --Lipoco Enterprises Inc. to produce automobile parts and sales for the American market.
LICO started to develop CNC machines, the first project was the "CNC Multi-Slide Automatic Bar Machine". |
| 1993 LNT-42 CNC 多滑座自動車床，榮獲第一屆「台灣精品獎」，並取得台灣、大陸、德國等專利。 | 1993 LICO developed multi-slide LNT-42 CNC Lathe and got the prize of "It's Very Well Made In Taiwan" No.1. Got the patent from Taiwan, Mainland China and Germany. |
| 1994 利高公司發展LA32H自動車床榮獲第二屆「台灣精品獎」。 | 1994 LICO developed LA32H Cam Automatic Lathe and got the prize of "It's Very Well Made In Taiwan" No.2. |
| 1996 利高公司取得ISO-9000國際品保認證。 | 1996 LICO was passed the international quality assurance licence of ISO- 9000. |
| 1999 利高公司發展複合加工多功能CNC車床，榮獲第八屆「台灣精品獎」。 | 1999 LICO Developed functional complex CNC lathe and got the prize of "It's Very Well Made In Taiwan" No.8. |
| 2001 利高公司經英國Amtriveritas取得CE認證，編號9002。 | 2001 The CE Mark approved by Amtriveritas in the UK. |
| 2002 LNE42複合加工CNC車銑加工機，榮獲第九屆國家級創新研發獎。 | 2002 LNE42 awarded the prize of "Innovative Research Award of SMEs" hosted by Taiwan Ministry of Economic Bureau. |
| 2004 利高開發LNT鍛胚自動送料，完全加工機。 | 2004 LICO developed LNT forged blank with automatic loading complete machining machine. |
| 2005 利高開發LNC-D自動棒材送料，有十二位複合加工及副主軸背面加工之CNC自動車床。 | 2005 LICO developed LNC-D automatic bar feeding with 12-position live tools and sub-spindle back machining CNC automatics. |
| 2006 利高開發CNA36P小型低成本之主軸移動式CNC車床，適用於長軸加工、不銹鋼球閥心軸、Y銑、手工具之多邊車削成形。 | 2006 LICO developed compact, affordable head stock sliding CNC automatic lathe for long shaft machining, stainless steel ball valve stem with Y-mill and hand tools with polygonal turning. |



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