



SINCE 1978

Latest technology **I**nternationalized products **C**ompleted service **O**verall reliability

領先的技術 · 優良的品牌 · 完整的服務 · 全程的信賴

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!

LND SERIES

CNC AUTOMATIC LATHE : LND42/LND65

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Turret with Tailstock



Machining Samples

LND42/65 is the best machine for investing in CNC automations. For bar parts in length three times as distance as external diameter of bar materials up to in length 290mm, LND 42/65 is considered as one of masters. Equipped with bar loader, finished parts delivery mechanism and hydraulic tailstock, LND 42/65 continuously produce bar parts with longitudinal accuracy in 0.01mm tolerance at maximum speed. An optional 3-jaw hydraulic chuck transfers NLD 42/65 to a universal turning for precision bar up to 200mm diameter with manual feed.

Part Catcher



motion 1



motion 2



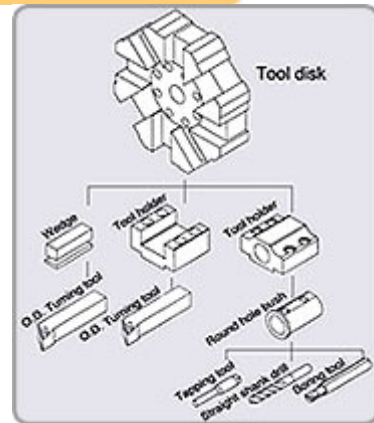
motion 3



Hydraulic Tailstock



Transformer (for 380V)



Tooling System for Turret

LND SERIES

CNC AUTOMATIC LATHE : LND42/LND65



The rigidity Z-axis machine bed

The Z-axis machine bed is made of box beam construction for achieving a maximum rigidity. TURCITE coating allows for smooth and precise movements. Telescopic covers protect the ballscrew.

The wide dovetail X-axis slideway is designed for high precision machining job

The fully supported X-axis slideway is hardened ground and coated with TURCITE for ensuring a rapid movement and wear resistance.



The indexing turret offers high speed and high precision process

The sturdy 8-position tool turret ensures a high repeated positioning accuracy. Rapid indexing times are 0.35 seconds for every single indexing and continuous 180 in 1.3 seconds. The tool disk has a build-in cooling nozzle that is directly spray coolant to the tool tips, which make tools life last longer.

The remote servo motor ensures electric control trouble-free

The limit switches for both axes are remote from the coolant and from every metal chips, eliminate problems and make service much easier.



CNC Control System

User-friendly console offers an easy operation even for inexperienced trainees. Standard machine with Mitsubishi M64AL, Siemens, Fanuc are also available for requirements.

LND SERIES

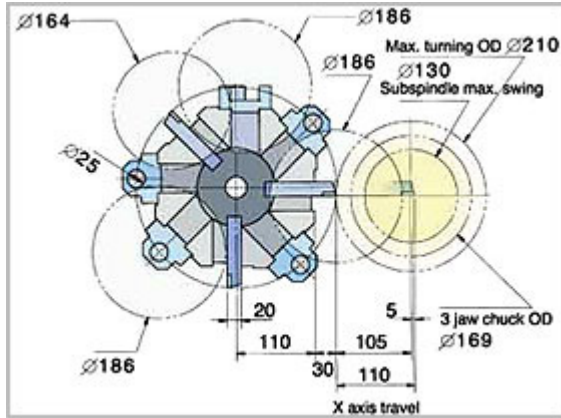
CNC AUTOMATIC LATHE : LND42/LND65

Technical Data:

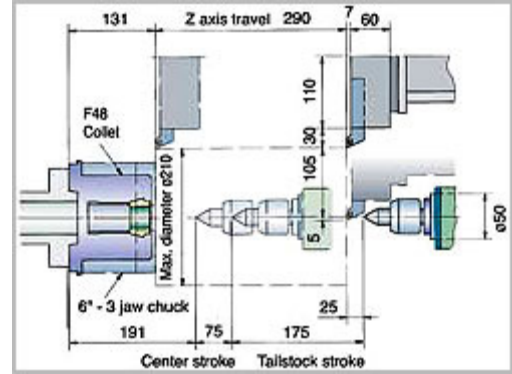
Model Unit	LND42 Metric(Inch)	LND65 Metric(Inch)
CAPACITIES		
Collet bar capacity, dia(through bore)	Ø42 (1.65"	Ø65 (2.56"
Swing over bad		Ø355 (Ø14")
Max. turning dia.(3-jaw power chuck)		Ø210 (Ø8.2")
Max. turning length		290(11.4")
SPINDLE		
Height of spindle center (approx.)		1,030(40.5")
Spindle nose	A2-5	A2-6
Collet chuck type	F48	F72
Power chuck type	(Ø6")	(Ø8")
Spindle/ draw bar through bore	Ø53(Ø2.08")	Ø78(Ø3.07")
SPINDLE DRIVE		
Motor power cont.		5.5/7.5kw (7.5/10HP)
Max. spindle speed	5,000rpm	4,000rpm
SLIDE		
Cross silide travel(X-axis)		100mm(4")
Longitudinal slide travel(Z-axis)		290mm(11.4")
Resolution		0.001(0.0001")
TOOL TURRET		
Number of tool positions		8(12)
Turning tool section		20mm Sq (3/4")
Boring tool reception		Ø25mm (Ø1")
Indexing time		0.35 sec
SERVO MOTORS		
Working feeds, X axis and Z		0~10,000 mm/min
Rapid traverses, X axis and Z		15 m/min
Feed force, X-axis and Z (Siemens)		5Nm(3.4 lb-ft)
HYDRAULIC TAILSTOCK		
Quill diameter		Ø70 (Ø2.76")
Quill taper		MT-3 (Moese)
Quill max. stroke		55(2.16")
Manual sadjustable stock		200(7.87")
Adjustable pressure		5~30 kg/cm ² (70~400 psi)
MACHINE SPACE, WELGHT and POWER REQUIREMENTS		
Overall dimension (LxWxH)		2,350x 1,400x1,800(92"x55"x71")
Machine weight		2,000 kg(4,400 lbs)
Hydraulic tank capacity		40 L (10 gal.)
Hydraulic pump motor		0.75kw (1 HP)
Coolant tank capacity		120 L (30 gal.)
Coolant pump motor		0.375 kw (1/2 HP)
Lubrication capacity		2 L, 6c.c./15min
Total power required		11kVA

LND SERIES

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Turret space diagram



Machining range

"MITSUBISHI" M64 CNC controller standard functions:

- * Part program storage length 600M
- * Graphic trace of tool path
- * Multiple canned cycles
- * Automatic chamfering & corner rounding
- * Simultaneously controllable 2 axes
- * Tool offset memory 80 sets
- * Tool life management
- * Constant surface speed control
- * Oriented spindle stop

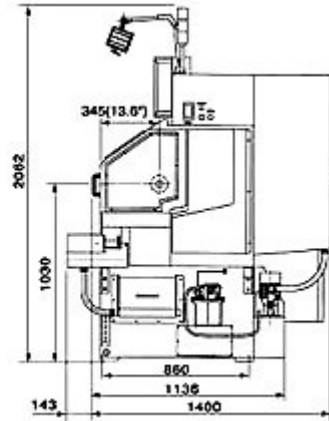
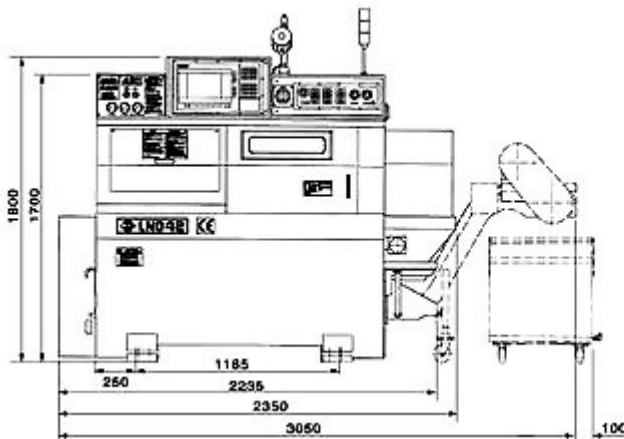
Standard Equipment:

1. Collet chuck LND42 F48 (Max. $\varnothing 42\text{mm}$)
2. Collet chuck LND65 F72 (Max. $\varnothing 65\text{mm}$)
3. Tool turret 8 stations (stationary)
4. 48-pos Spindle dividing system
5. Hydraulic system, coolant system and air jet system
6. Automatic lubrication system
7. Work lamp and front door interlock
8. Control cabinet heat exchanger
9. Tool box and tool kits
10. Standard tool holders

Optional Accessories:

1. Hollow power chuck $\varnothing 6"$ (LND42)
2. Hollow power chuck $\varnothing 8"$ (LND65)
3. 12-Station-Power-Turret
4. Tailstock MT # 3
5. Parts catcher
6. Parts conveyor
7. Extra tool holders
8. Door interlock(CE)
9. Chip conveyor with cart
10. Automatic bar feeder with interface
11. Foot pedal for collet & chuck open/ close

Dimensions:



公司沿革 Company Profile

- | | |
|---|--|
| 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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