

CNC FLAT BED LATHES WITH CENTROID T-400 S CONTROL

Combination of manual, teach and full CNC operation for CNC beginners and experts.
No CNC skills are required.



KL-2160 CNC Lathes with CENTROID T400 control

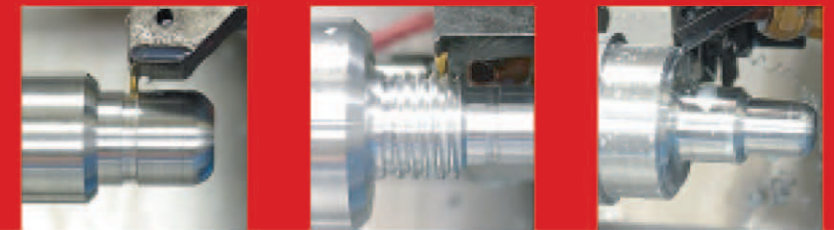
The KL Series CNC Lathes were designed for tool rooms and job shops. Ideal for one part or moderate production runs. Our machine features reduced set-up time for complex parts. Our machine quality insures precision and consistency, part after part.

KL-2100 SERIES FEATURES:

- Centroid T-400s control with 15" LCD.
- Turcite lined ways on X & Z-axis.
- Dual hand wheels for manual operation on X & Z-axis.
- C5 double nuts precision ball screws hardened & ground for high accuracy and long life.
- 3-point supported spindle uses 2 precision taper roller bearings and 1 ball bearing.
- Main gears are made from chromium, nickel, molybdenum alloy steel, case hardened, and ground onreishauer.
- Hole through spindle KL-1640: D1-6, ϕ 55 mm. 2-3/8 inch,
KL-2100: D1-8, ϕ 85 mm. 3-3/8 inch.
- 7.5 HP 220V 3PH with 2 range auto-shifting headstock.the KL 1600 offers 25-3000 rpm
- 10 HP 220V 3PH with 3 range auto-shifting headstock.the KL 2100 offers 25-2000 rpm
- 100% Laser testing insures positioning accuracy and repeatability
- Massive one piece casting construction for maximum cutting performance.
- Built-in coolant system and Quartz worklight.
- Machine made in Taiwan.
- Rigid meehanite casting.
- Ways are Hardened & ground to HB450.
- Automatic lube system.
- ISO 9001 quality assurance.

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The Atrump range of heavy duty versatile cnc lathes are designed to undertake large diameter work from 26 inches to 33 inches (650-840mm) diameter and up to 200" (5100mm) between centers. They feature 20 to 25 HP main drives with auto shifting, CSS, 17-3/4" (450mm) wide bedways, extra large carriage V-ways, choice of large spindle bore: 4", 6", 9", 12" (rear nose optional) make these machines extremely versatile on large work. They are ideal for one part or production runs. The user-friendly Centroid T-400 CNC control can be utilized in manual, teach, semiautomatic or CNC operation



Atrump Heavy Duty CNC lathes are now available with C axis and driven tools for combined Milling and Turning in one machine.

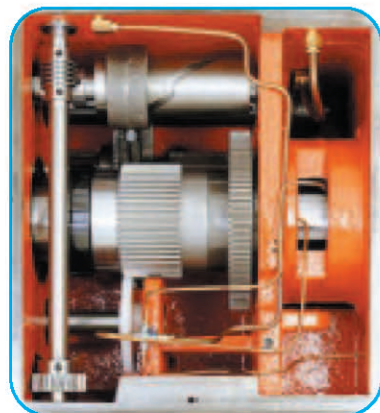


KL-3000 SERIES FEATURES:

- Rugged heavily ribbed Meehanite casting construction.
- Extra wide induction hardened and precision ground bed ways.
- Turicite-B lining on carriage saddle for smooth, stick slip free movement.
- All precision sliding surfaces and gibs are hand scraped.
- Hardened & Ground ball-screws with preloaded double nuts, fitted on 60° angular contact bearings.
- Powerful AC Vector spindle drives. Provide high power for Constant Surface Speed Cutting.
- Large bore heavy duty spindle mounted on precision taper roller bearings for heavy cutting.
- 3 infinitely variable speed gear ranges with auto shifting for fully programmable spindle speeds.
- The headstock has a special oil lube system for heat emission to allow for high speed machining.
- Heavy duty manual tail-stock with safety switch. (2-speed ratio).
- AC servo axis motors and drives are high performance
- Dual electronic hand wheels allow for manual operation.
- Automatic lubrication to all sliding surfaces and axis ball-screws.
- Flood coolant system and Halogen work light are standard.
- All electric components are built-in an enclosure cabinet with a main disconnect switch.
- Fully enclosed guarding with two sliding doors CE standard.
- All machines are laser calibrated before shipping. Each machine is subject to a rigorous 48 hour power on test which includes cutting and the coolant system.

HEAVY DUTY CNC FLAT BED LATHES WITH CENTROID T-400 CONTROL

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Geared Headstock:

The Spindle & gears are made of CR-MO (Chrome-Molly) alloy steel which are carburized & precisely ground, forced lubricating & oil bathed combined in headstock which can be prolonged servicing life.

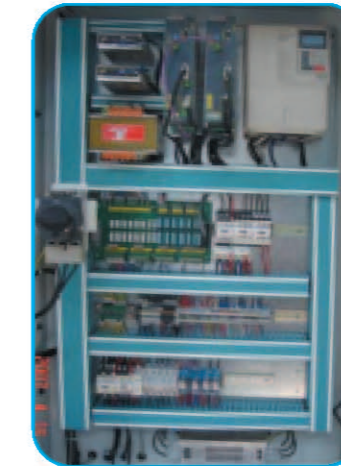
Rugged heavy construction:

The bed is heavily ribbed cast iron construction with hardened and ground ways. The mating saddle is turcite coated and precision scraped.



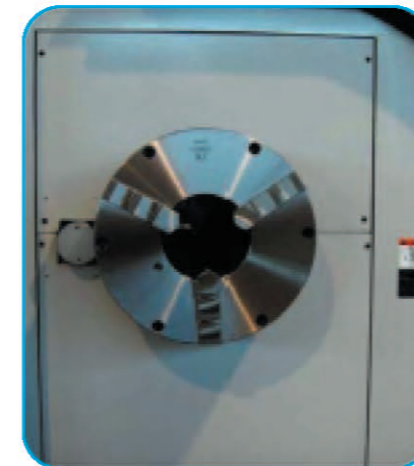
Variable, Programmable Speed:

Continuously variable spindle speeds are programmable through three gear ranges by automatic shifting. The constant surface speed control feature maintains excellent part surface finish and improves tool life.



Electrical Cabinet:

All electric components are built-in an enclosed cabinet with a main disconnect switch. The control circuit has a no-volt release, which meets CE standard.



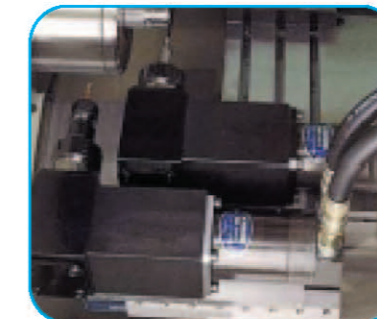
Rear headstock chuck is available (Option):

For pipe threading and long shaft work, extra large spindle bores are available to $\varnothing 6''$, $\varnothing 9''$ and $\varnothing 12''$

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Turret with live tools

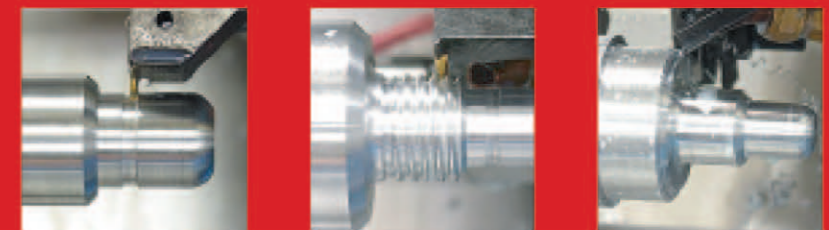


Hydraulic live tools



Electro-magnetic disk brake

The Mill/Turn series feature digital motors and drives. The 18.5KW spindle motor, and CF 28Nm servo motor have a 1:40 ratio planetary gearbox to increase torque to 1000 NM. The CF axis spindle start from 30 RPM for live tools. With CF-axis spindle and live tools, milling and drilling can be done in one machine. The Mill/Turn series with a disc brake on the spindle locks the programmed position to provide a rigid workholding datum for operation of the third-axis tooling, by means of either a VDI 40 driven tool turret or a Hydraulic living tool with Radial milling/drilling head or Axial milling/drilling head for combined milling and turning in one machine



MACHINE STANDARD ACCESSORIES:

- Auto lubrication system
- Center and center sleeve
- Work light
- RS-232 port
- Full enclosure with two front sliding doors
- Dual electronic handwheels for manual turning
- Coolant system
- Tools & tool box

HARDWARE:

- 15" Color VGA LCD Screen.
- Keyboard
- X & Z Dedicated Jog Buttons.
- DC Servo Drives And Motors.
- Shop floor programming / Conversational
- Coolant Functions
- 1GB Solid State Hard Drive.
- USB 2.0 port.
- Rs-232, Mouse & Parallel Ports.
- PC Based.

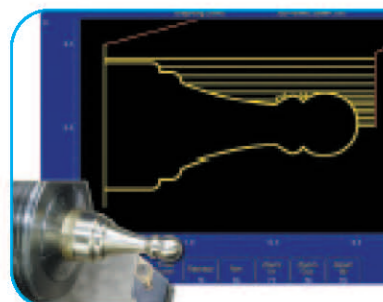
T-400 S CNC CONTROL FEATURES:

Floppy Disk Drive
 X, Z and C axis
 Tool Path Graphics
 Network Ready
 Dual Handwheels
 Fast Simple Setup
 Program Stop and Restart
 Sealed Industrial Operators Console
 Standard PC keyboard or fully sealed
 Constant Surface Speed
 Crystal Clear 15" Color LCD
 Conversational Programming
 Coolant Controls, Spindle Controls & Speed Override
 Built in Hard Drive
 Dedicated controls
 Tool Check
 Feed Rate Override
 Help Screens
 PC Based Upgradeable & Expandable



Powerful control with user-friendly operation

- Cut parts the first day with CENTROID's straight forward operation.
- Get more work through a machine with faster setups.
- Produce more parts per hour with a better surface finish.
- Spend less time programming and more time making chips.
- Bring in more work and bid on higher paying jobs.



Conversational Programming.

- Fill in the blank: Profiling, Threading, Grooving, Facing, Turning, Tapering, Drilling and Tapping, Auto Chamfer, Line, Arcs, Cutoff, and more..
- Automatic profile cleanout, Intercon automatically creates the roughing and finish passes you just enter in the final dimensions.
- Help screens for all the common turning cycles, just fill in the dimensions.
- INTERCON Creates the G codes for you. Graph work as you go.

SOFTWARE:

- PC based technology, software updateable & high speed block throughput.
- Conversational programming: Tool path graphics, Turning cycles, Grooving cycles, Drilling cycles, Tapping cycles, Cutoff cycle, Threading cycles, Stock removal cycles, Position line and Arc events, Integrated tool library, run time estimates graphical math help & automatic corner radius
- G-codes & full m-function control.
- Tool functions, tool compensation.
- Part program storage and editing: Program storage, Full screen unlimited file size, Text editor, Read/Write to usb2, Save programs via usb2 or comparts.
- Axis control: Constant surface speed control, High speed contouring, Backlash compensation, Pitch error compensation, Least input increment of .0001", 2000 line lookahead, Accel/Decel, quadrature encoder interface.
- Feed function: Rapid traverse, Rapid traverse override jog panel key selectable, Rapid traverse automatic accel/decel, feedrate override 2 to 200% variable.
- Utilities: Format floppy command, Backup data & syst. Files, restore data & syst. Files import/export, drag plot, plc and system diagnostics & motor temperature estimating.

Specifications:

MODEL	KL-1640	KL-2140	KL-2160	KL-2180
Height of Center	8" (203 mm)	10.53" (267 mm)		
Swing over bed	16" (405 mm)	21" (535) mm		
Swing over cross slide	9" (238 mm)	12" (310 mm)		
Center distance	40" (1000 mm)	40" (1000 mm)	60" (1500 mm)	80" (2000 mm)
Bed width	11.8" (300 mm)	13.7" (350 mm)		
Spindle hole	2.18" (55 mm)	3-3/8" (85 mm)		
Spindle nose	D1-6 Camlock	STD:D1-8 Camlock OPT.:D1-11 Camlock		
Taper of spindle bore	M.T #6 (Sleeve M.T #4)	M.T #7 (Sleeve M.T #5)		
No. of spindle speeds	Auto 2 speed shift	Auto 3 speed shift		
Spindle RPM, ranges	25-3000 rpm	25 – 2000 rpm		
Longitudinal travel (Z axis)	33.5" (850 mm)	33.4" (850 mm)	53" (1350 mm)	72.8" (1850mm)
Cross slide travel (X axis)	8" (200 mm)	12" (305 mm)		
Rapid traverse X/Z	200:X, 300:Z IPM			
Cutting feed rate	120 ipm			
Constant surface speed	Yes			
Tailstock quill dia	2.048" (52 mm)	3" (75 mm)		
Tailstock taper Morse	MT#4	MT#5		
Tailstock quill travel	6 inch (152 mm)	6-5/16" (160 mm)		
Max. size cutting tool	25 mm, 1 inch (4 way tool post)			
Main motor, AC	7.5 HP, 5.5 kw	10HP 7.5 kw		
Control	CENTROID T400			
Net weight	4070 lbs	6270 lbs	7040 lbs	7700 lbs
Crate Dimension (L x W x H)	96" x 74" x 77"	96" x 74" x 77"	126" x 74" x 77"	136" x 74" x 77"

We reserve the right to change design, specifications, color, or price without notice.

Optional Accessories:

- Steady rest, approx. Ø20-Ø160mm cap. (KL-1640)
- Steady rest, approx. 40-280mm cap. (KL-2100)
- Follow rest.
- 3 jaws universal chuck 8", 10", 12" dia. cast.
- 4 jaws independent chuck 12", 16" dia. cast.
- Quick change tool post w/6 holders.
- Electric Automatic 8 Tools Turret.
- Hydraulic pump unit for chuck & Turret.
- 8" Hydraulic chuck w/rotary cylinder for KL-1640.
- 10" Hydraulic chuck with Rotary cylinder for KL-2100 series.
- 8 Station Hydraulic Turret
- Transformer for 400-440V, 15 KVA





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Specifications for CNC Heavy Duty Teach-in Lathes

Description	KL-2660 / KL-2680 KL-26120 / KL-26160 KL-26200	KL-3060 / KL-3080 KL-30120 / KL-30160 KL-30200	KL-3260 / KL-3280 KL-32120 / KL-32160 KL-32200
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Working Capacity

Swing over bed	26.37" (670 mm)	30.31" (700 mm)	33.00 inch (840 mm)
Center height to bed	13.18" (335 mm)	15.15" (385 mm)	16.35 inch (420 mm)
Center height to top cross slide	8.07" (205 mm)	9.84" (250 mm)	11.00 inch (280 mm)
Swing over cross slide	15.74" (400 mm)	19.68" (500 mm)	22.44 inch (570 mm)
Dis. Between centers	63" (1600 mm) / 82.67" (2100mm) / 122" (3100mm) / 161.41" (4100 mm) / 200" (5100mm)		
Width of bed	17.71"		

Headstock

	D1-8 *	A2-11 *	A2-11	A2-15	A2-20
Spindle nose					
Spindle bore	3.34" (85 mm)	4" (105 mm)	6" (153 mm) opt	9" (230 mm) opt	12" (305 mm) opt
3-Jaw scroll chuck (Option)	Ø10" (thr. hole 76 mm) for D1-8 spindle nose only				
	Ø12" 3-jaw scroll chuck (thr. hole 105 mm)				
	Ø16" 3-jaw scroll chuck (thr. hole 155 mm)				
	Ø20" 3-jaw scroll chuck (thr. hole 160 mm)				
	Ø25" 3-jaw scroll chuck (thr. hole 200 mm)				
Hydraulic Power chuck (Opt.)	Ø10" (thr. hole 75 mm) for D1-8 spindle nose				
	Ø12" (thr. hole 105 mm) for A2-11 spindle nose				
	Ø15" (thr. hole 117.5 mm) for A2-11 or A2-15				
	Ø18" (thr. hole 117.5 mm) for A2-11 spindle nose,				
	Ø24" (non thr. hole) for A2-15 or A2-15				
Bar capacity (Power chuck)	Ø3" (75 mm) for D1-8 of 10" chuck,				
	Ø3.6" (91 mm) for A1-11 of Ø12" chuck,				
	Ø4.6" (117.5 mm) for A1-11 of Ø15" chuck and Ø18" chuck				
Range of spindle speeds	3 Rang Gears Auto Shifting				
Spindle speeds range	H:2000-491 rpm M:490-126 rpm L: 125-25 rpm	H:1500-331 rpm M: 330-93 rpm L: 92-24 rpm	H: 800-176 rpm M: 175-59 rpm L: 58-12 rpm	H: 450-108 rpm M: 107-31 rpm L: 30-6 rpm	H: 350-87 rpm M: 86-26 rpm L: 25-5 rpm
Taper in spindle	MT#6				

Saddle

Longitudinal travel (Z-axis)	59.05" (1500 mm) / 78.74" (2000 mm) / 118.11" (3000 mm) 157.48" (4000 mm) / 196.85" (5000 mm)
Cross-slide travel	17.71" (450 mm)
Size of tool holder	Boring Tool : Ø1.57" (40 mm) , O. D. Tool & Facing Tool: 1" (25 mm)
Ball screw (Dia x pitch)	X-Axis: Ø1" (25 mm) x P 0.08" (5 mm), Z-Axis: Ø2" (50 mm) x P 0.4" (10 mm)

Tailstock

Quill Diameter	Ø4.13" (105 mm)	Ø4.13" (105 mm)	Ø4.13" (105 mm)
Quill Travel	8.66" (220 mm)	8.66" (220 mm)	8.66" (220 mm)
Quill Taper	MT #5	MT #5	MT #5

Motor

Spindle motor	15 HP (Std. for KL-2600), 20 HP (for KL-3000 or KL-3200), 25 HP (option)
Z-axis drive motor	2 kw
X-axis drive motor	1 kw
Coolant pump motor	1/4 HP Std, 3/4 HP (Opt.)
High Pressure coolant	1-1/2 HP (Opt. for U drills) 5 bar

X, Z- AXES FEED

X axis rapid travel	236 ipm
Z axis rapid travel	315 ipm

General

Power Required	25 KVA			
Floor space (L x M x H)	141.33" / 161" / 200.39" / 239.76" / 279.13" x 76.77" x 71.65" (3590/4090/5090/6090/7090 x 1950 x 1820 mm)			
Approx. machine weight	9240 lbs / 10340 lbs / 12540 lbs 14740 lbs / 17160 lbs	9900 lbs / 11000 lbs / 13200 lbs 15400 lbs / 17600 lbs	9900 lbs / 11000 lbs / 13200 lbs 15400 lbs / 17600 lbs	9900 lbs / 11000 lbs / 13200 lbs 15400 lbs / 17600 lbs

- KL-2600 Series Spindle with D1-8, Ø3.34" (85 mm) Spindle bore as a standard, KL-3000 and KL-3200 Series Spindle with A2-11, Ø4.13" (105 mm) Spindle bore as a standard.
- Specifications are subject to change without prior notice.
- Actual working travels maybe reduced by Hyd. Turret and Chuck option are fitted.

STANDARD EQUIPMENT:

- CENTROID T-400 Teach-in CNC Control
- Two electric hand-wheels for X-Z axes
- Coolant system
- Automatic Lubrication
- Fully enclosed guarding with interlock sliding doors
- Manual Tailstock
- Halogen work light
- Instruction manual and tools box & tool kits

OPIONAL EQUIPMENT:

- 3-jaws screw chuck (Manual), 16", 20", 25".
- 4-jaws indepent chuck 18", 20", 24", 28".
- Hydraulic pump unit for chuck & Turret.
- Hydraulic chuck w/rotary cylinder, 12", 15", 18".
- 8 station Turret. (LS-200)
- Quick change tool post with 6 holder
- 6", 9", 12" Spindle bore
- Dual chuck option (factory installation)
- Chain type chip conveyet (factory installation)
- Steady rest w/roller Type.(Ø6.38"(160mm)-Ø14.2"(360mm)
- Follow rest.(Ø1.57"(40mm)-Ø9.84"(250 mm)
- CF axis indexing spindle (factory installation)

