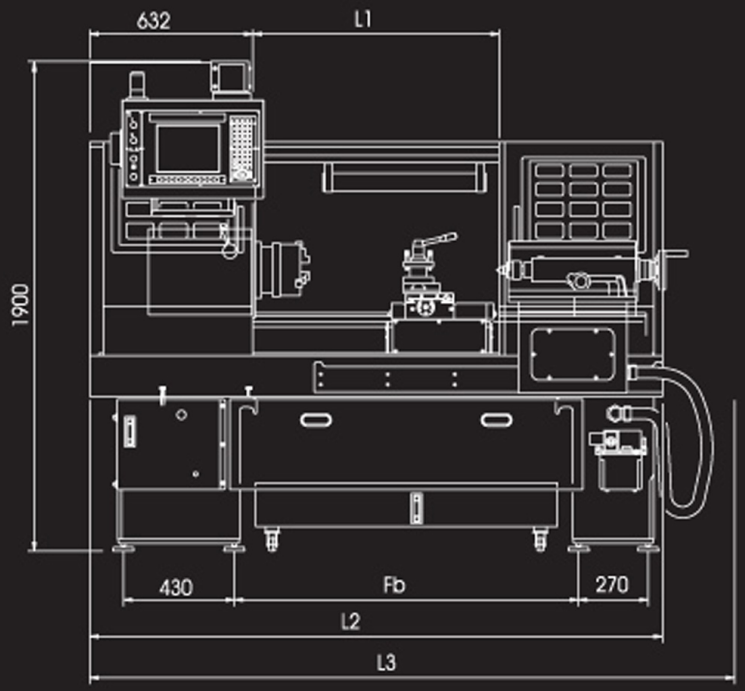
L&W
MACHINE

PC-Technology-Based Turning Center

cyclone

FB series



The L&W CNC lathe is a compact package that integrates modern design, critical accuracy plus powerful CNC control features.

Designed and built to maximize efficiency.

The series CNC lathe delivers:

1.Greater Production

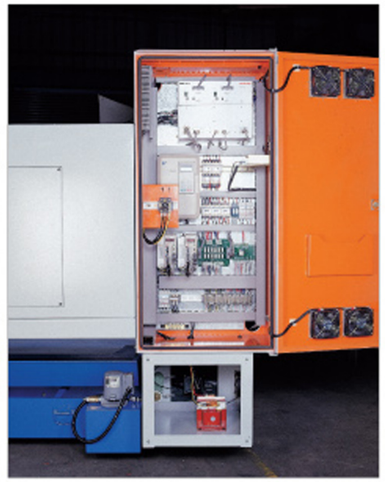
2.Traditional L&W quality reputation

Anilam-4200T

- *Intel Pentium PC based processor*
- *DSP Motion Control*
- *8MB DRAM for fast access*
- *Digital AC servo system*
- *Icon based programming*
- *12.1" TFT active matrix color display*
- *8GB (min) hard drive, 1.44 MB floppy disk*
- *Ethernet LAN option*
- *Infinite threading range*
- *Multiple start threading*
- *Constant surface speed (CSS)*
- *Graphical program creation*
- *SO G-Code programs with conversational help*
- *Draw graphics With multiple views*
- *Simple Command Interface (SCI) for manual turning of Radius, Chamfer, Taper, Face, Turn, Arc*
- *Blueprint programming*
- *Extensive canned cycles*
- *Software in 7 languages*
- *Off-line software for PC available*

Fagor 8040 TC

- *Powerful industrial high speed CPU for lathe applications.*
- *11" Full-key color/mono LCD*
- *Up to 1Mb of user RAM memory (standard with 256Kb)*
- *Software in 12 languages*
- *Digital servos interface (Fagor DDS is necessary)*
- *A fully optocoupled serial line RS-232C of up to 115, 200 baud*
- *DNC*
- *Solid Grapic*
- *Profile editor (2D MINI CAM)*
- *Turning can cycles*
- *Software TC (Full conversational software for lathe)*

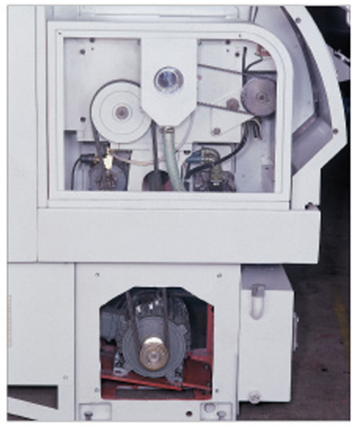


Dependable Control Cabinet

- *A completely sealed control cabinet to prevent fluid or dust from entering.*
- *Powerful fan circulation, greatly reducing heat in the control cabinet, maintains optimum working environment for electrical parts/components.*
  Each electrical component is strategic located for quick maintenance.

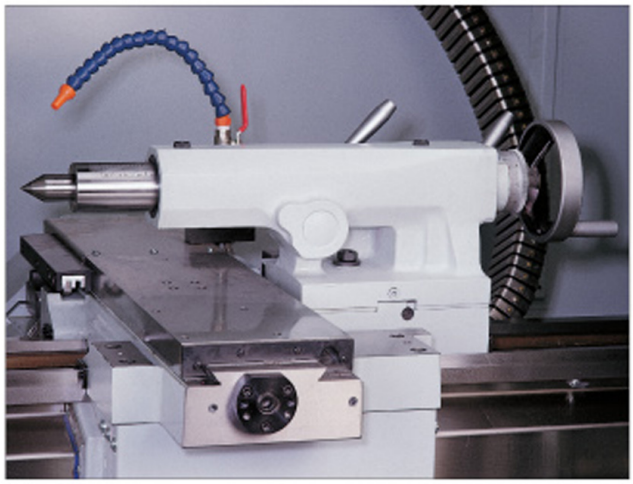
Convenient Manual Control

Providing convenient manual control for x, z-axis, movable operation control box is also equipped with two handwheels.
Comprehensive function keys enhance added operation convenience.



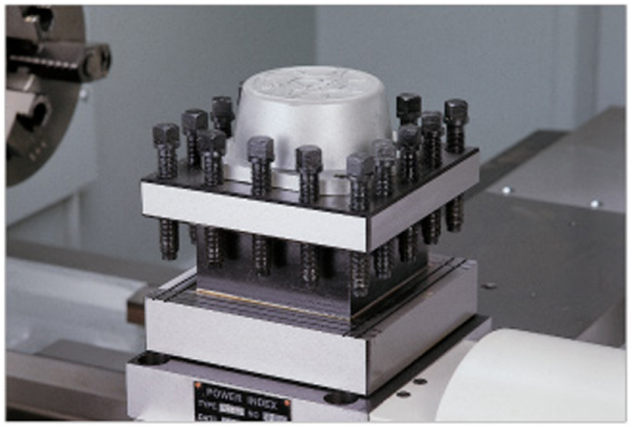
Headstock

- *The headstock employs a forced lubrication system. The separately mounted oil tank delivers oil to headstock via a potent pump. Insufficient pressure or oil, a display operator alert lights. Circulating gear/bearing lubrication loop return, in left front side reservoir, maintains a constant headstock temperature plus high machining accuracy.*
- *Automatic collection box gathering of cutting fluid and chips (spindle bore splash protection), with return to fluid tank via fluid hose.*
- *4 belts drive in parallel assures extremely stable, smooth running with a minimum of vibration.*
- *Inverter motor meets national standards, and is dynamically balanced together via pulley.*



Tailstock

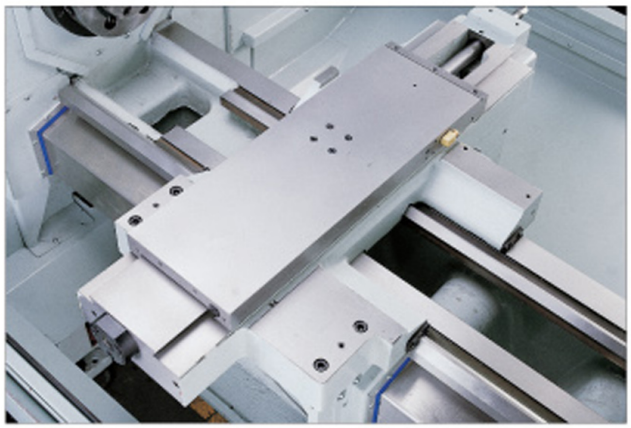
- *Rigid tailstock is quickly locked to bed by means of a rear cam clamp lever, with additional lock nut security available via wrench tightening.*
- *Increased throat depth on tailstock. MT4 tapered quill bore accomodates a live center. It permits long shaft turning without interference when applying a manual tool post, power turret, or hydraulic P8 turret.*
- *When performing manual drilling, the quill is able to set zero for drilling depth measuring.*
- *Available to equip with a hydraulic tailstock, permitting quill to advance and retract automatically.*



Efficient, Accurate Power Turret

- *The power turret is driven by a worm/worm gear mechanism for convenient tool change. Powered by a 375 w motor with great clamping force up to 1 ton. Fast tool change is accomplished in only 2 seconds (adjacent tools). Precision ground clutch gear engagement assures accurate and firm positioning.*
- *During tool changing, the turret rotates and positions directly without raising or lowering, which effectively avoids parts damage due to entrance of cutting fluid or chips.*

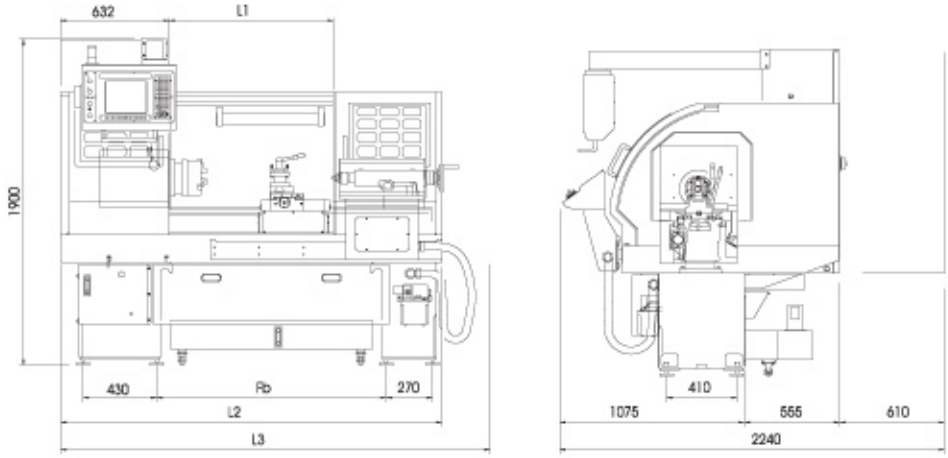
Massive Bed and Carriage



- *Made of high quality Meehanite cast iron, the bed has box section construction. Bed is tempered to relieve stress and precision machined. Bed ways are high frequency quenched to hardness HS 70 - 75, and precision ground. The entire bed features outstanding structural rigidity.*
- *Dovetailed saddle slideways are precision machined and ground, then calibrated for squareness accuracy.*
- *Dovetailed slideways on saddle and cross slide are coated with Turcite-B precision scraped to ensure uniform matching surfaces.*
- *Circulating lubrication on X, Z - axis is uniformly distributed to ensure longer wearing resistance, precision scraped tapergibs feature positive*

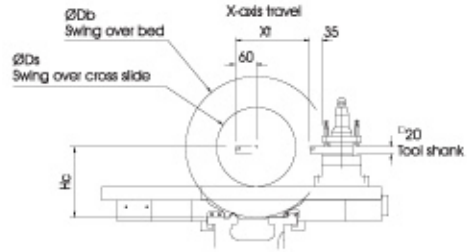
contact, ensuring smooth feed motion and high machining accuracy.

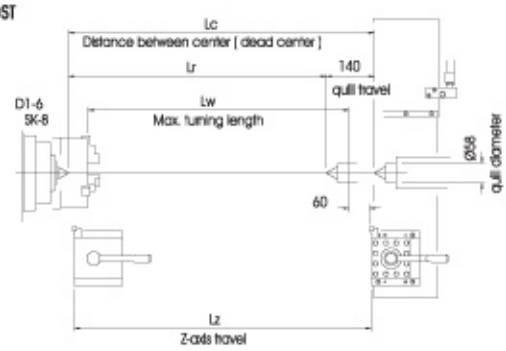
- *X, Y, - axis ball screws are supported by 60 angular contact bearings. One end is fixed, and the other free end is supported by ball bearings. Circulating lubrication for long service life.*



Model	L1	L2	L3	Fb
FB-1440	955	2220	2500	1335
FB-1640	955	2220	2500	1335
FB-1660	1210	2730	3010	1845

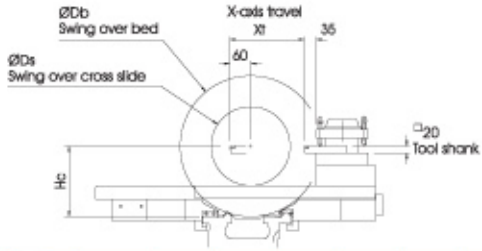
4 WAY TOOL POST

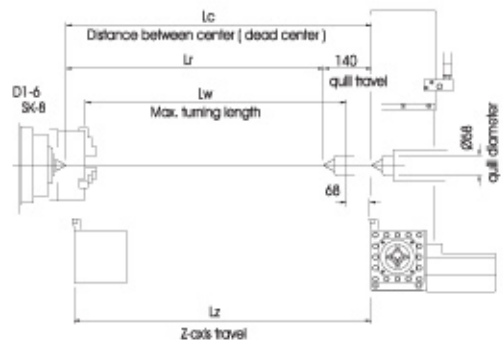




Model	Lc	Lr	Lw	Lz	Db	Ds	Hc	Xt
FB-1440	890	750	760	865	360	180	180	205
FB-1640	890	750	760	865	410	230	205	216
FB-1660	1400	1260	1270	1375	410	230	205	216

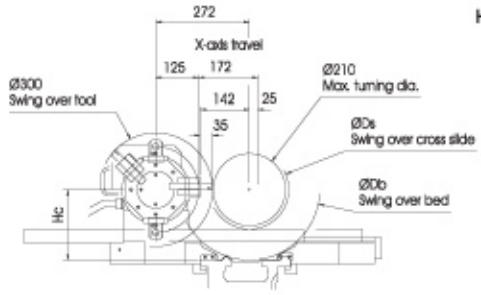
ELEC. TURRET H4

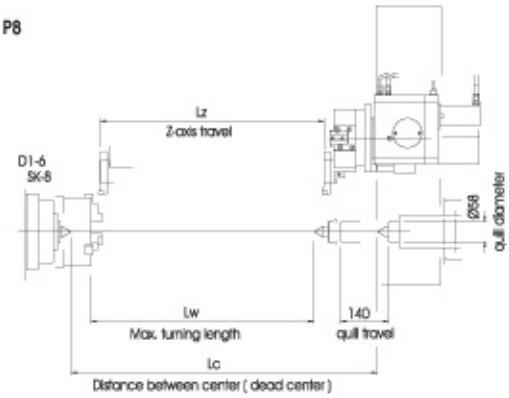




Model	Lc	Lr	Lw	Lz	Db	Ds	Hc	Xt
FB-1440	890	750	760	865	360	180	180	205
FB-1640	890	750	760	865	410	230	205	216
FB-1660	1400	1260	1270	1375	410	230	205	216

HYDRAULIC TURRET P8





Model	Lc	Lw	Lz	Db	Ds	Hc
FB-1640	890	650	650	410	230	205
FB-1660	1400	1160	1160	410	230	205

MODEL			FB-1440	FB-1640	FB-1660
Copacity	No. of control axis		2 AXIS		
	Swing over bed		Ø360mm (14.17")	410mm (16.14")	
	Swing over cross slide		Ø180mm (7.08")	230mm (9.05")	
	Distance between centers		890mm (35")		1400mm (55")
	Width of bed		260mm (10.234")		
Headstock & Main spindle	Spindle nose , Internal taper		STD. D1-6 OPT. A1-6, MT.No.4		
	Spindle center sleeve		MT. No.6 x MT. No.4		
	Spindle bore		Ø52.5mm (2.066")		
	Spindle speed: Gear steps / Range		Manual change 2 steps / L 25~480 R.P.M, H 481~3000 R.P.M infinitely variable		
Cross slide (X-axis) & Carriage (Z axis)	Longitudinal travel (Z-axis)		865mm (34")		1375mm (54")
	Coss slide travel (X-axis)		205mm (8.07")	216mm (8.5)	
	AC servo motor (X-axis)		0.45kw 2.84N.m		
	AC servo motor (Z-axis)		0.85kw 5.39N.m		
	Dia. of ball screw (X-axis)		20mm (0.787") P5 C5		
	Dia. of ball screw (Z-axis)		32mm (1.259") P10 C5		
	Rapid traverse speed (X-axis)		5 M/min (196.8 ipm)		
	Rapid traverse speed (Z-axis)		7.5 M/min (295.3 ipm)		
Turret	Tool station		STD. Manual 4 way tool post / OPT.Electric H4 turret		
	Size of external turning tool		□ 20mm / □ 20mm		
Tailstock	Quill diameter		Ø58mm (2.283")		
	Quill travel		140mm (5.5")		
	Taper of center		MT.No.4		
Motor	Main spindle motor		motor AC 3.7kw (5HP) + Inverter (7.5HP)		
	Hydraulic oil pump		OPT. 0.75kw (1HP)		
	Forced lubrication for headstock		1 / 4 HP		
	Coolant pump		1 / 6 HP		
Tank Capacity	Hydraulic tank		OPT. 30 Litre (6.6 gal)		
	Coolant tank		50 L (11 gal.)		70 L (15.4 gal.)
Measurement	Weight (Net/Gross) Approx.		2000kgs/2500kgs	2050kgs/2550kgs	2150kgs/2650kgs
	Packing sizes	Length	2286mm (90")		2800mm (110")
		Width x height	Width 1800 (70.9") x Height 2230mm (87.8")		

●In the interest of product development, L&W Machine Tools, Inc. reserves the right to alter any mechanical specification without prior notice.

STANDARD ACCESSORIES:

- ***CNC controller***
- ***Backplate for 9" chuck***
- ***Dead center MT.4 made of carbon steel***
- ***Dead center MT.4 with carbide tip***
- ***Spindle center sleeve MT.6 x MT.4***
- ***Level pads ---- 8pcs***
- ***Toolset and box***
- ***Machine light***
- ***Operation manual and parts list***

OPTIONAL ACCESSORIES:

- ***3-Jaws scroll 9" chuck***
- ***4-Jaws independent 10" chuck***
- ***Electric H4 turret***
- ***Quick change tool post***
- ***Drill chuck and arbor***
- ***Rotating center MT.4***
- ***Hydraulic tailstock quill***
- ***Hydraulic hollow chuck 8" with Rotary cylinder/bar capacity 36***
- ***Steady rest w/ball bearing***
- ***Follow rest w/bronze tip***

L&W MACHINE TOOLS, INC.

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