

# Precision CNC Flat bed Lathe Go SIMPLE! GO EASY!

## ATL 18"~33" Series Flat Bed CNC Lathe

The Easiest Conversational NC lathe you can trust!!!



#### Headstock

Rugged high grade alloy gears are hardened & ground by Reishauer to achieve for smooth, quiet and vibration-free running.

The main spindle is supported by selected taper roller bearings and preloaded roller bearing to ensure high running accuracy through full speed ranges. And this design

also insures spindle's high rigidity and concentricity.

Pressurized circular lubrication from separate electric pump and oil reservoir provides a constant flow to all gears and bearings which maintains excellent thermal stability. Hot oil does not stay in headstock thus preventing thermal expansion and work piece intolerance.

Speed range selection is driven by an electric motor which automatically selects the

range when control asks for the change.

The 5000 turn Nemicon encoder equipped on the secondary spindle shaft to provide the exact position of speed reading for spindle's infinitely variable speed selection.

The four parallel V-belts assure drive in extremely stable, smooth running with minimum vibration.

Powerful frequency, efficient YASKAWA vector type inverter and main spindle motor meets international standards and is dynamically balanced with pulley to optimize torque and horsepower.

#### Bed and Carriage

One piece machine base casting from 18" to 25" model is the solid & stable foundation for our lathe. Once it is attached to the precision ground bed with 14" wide bed ways, which was annealed to relieve stress and induction hardened to hardness HRC 52, the entire combination features outstanding structural rigidity and excellent vibration absorbing ability.

Dovetailed carriage and cross slides are both hardened and precision grounds. Saddle is laminated with Turcite-B and is scraped to maximizing matching surfaces. X, Z axis ball screws are supported by forced angular contact bearings to enable sensitive movement. One end is fixed and the other free end is supported by forced angular contact bearings or angular contact bearings.

Build-in electronic stops in X & Z axes eliminate the chance of over travels.

Front mount cutting turret and rear mount servo motor will eliminate the cantilever on the saddle. No more unbalancing and rocking of the



#### CE Standard Electric Cabinet

A complete sealed electric cabinet with power disconnect to prevent fluid or dust from entering.

Integrated electrical engineering with I/O plate and component set type evidence all control system's performance and allow for

easy trouble-shooting.

Top mounting resisters are heat dissipater that reduces heat build-up when user constantly forward and reverse the spindle. Powerful top-and-down mounted fans use hot & cold air principle to reduce heat build-up in the electric cabinet.

Each electric component is placed under CE guideline and is

quick and easy to maintain.

A top mount warning light displays three colors to indicate the state of the machine. Red means error within operation procedure; yellow displays when the job is finished; and green is showing machine is in the state of running. (Note: This applies only to Fagor controller; other controllers may have a different setting.)



#### **Tailstock**

Rigid construction and increased throat depth on tailstock with MT#5 taper quill. When applying with manual 4 way tool post, electric H4 or H8 turret, it allows for free cutting of long and heavy work pieces.

When performing manual drilling, the quill can be set to zero for easy drilling depth mea-

surement.

Can be optionally equipped with a hydraulic quill to automatically travel forward and reverse.

#### **Movable Manual Control Panel**

Providing convenient manual control for X, Z axis, the panel has two Manual Pulse Generators installed for minute axis increment.

Comprehensive, waterproof function keys and push buttons enhance operational convenience.

### Fully Enclosure Splash Guard

Standard sized enclosure for model ATL 1860 to ATL 3360. All models with the same length will have the same sized cover enclosure. This design reduces parts inventory and also increase interchange ability between models.

A designed open-able door on rear splash guard and right side guard provide for X & Z

axis, ensures easy axes maintenance and assembly adjustments.



## Optional Accessories



3 jaw scroll chuck



Chip conveyer system



External coolant tank



Electric 4 way tool post



Hydraulic 3 jaw chuck



Hydraulic 8 tools turret



Hydraulic tailstock



Electric 8 tools turret



Side oil tank



Spindle oil chiller unit















	Model		ATL 1840	ATL 1860	ATL 1880	ATL 2140	ATL 2160	ATL 2180	ATL 2540	ATL 2560	ATL 2580	
	Swing over bed		460mm (18.11")			540mm (21.25")			630mm (24.80")			
	Swng over cross slide		230mm (9.06")				310mm (12.20")			400mm (15.75")		
		4 way tool post/H4 eletric turret; spindle w/3 jaw chuck to center	780mm (30.71")	1280mm (50.39")	1780mm (70.08")	760mm (29.92")	1260mm (49.61")	1760mm (69.29")	760mm (29.92")	1260mm (49.61")	1760mm (69.29")	
Working	Max. cutting length	V8 electric turret; spindle w/3 jaw chuck to center	700mm (27.56")	1200mm (47.24")	1700mm (66.93")	670mm (26.38")	1170mm (46.06")	1670mm (65.75")	610mm (24.02")	1110mm (43.70")	1610mm (63.39")	
Capacity		Center to center	900mm (35.43")	1400mm (55.12")	1900mm (74.80")	900mm (35.43")	1400mm (55.12")	1900mm (74.80")	900mm (35.43")	1400mm (55.12")	1900mm (74.80")	
	Max. cutting diameter 4 way tool post/H4 eletric turret		460mm (18.11")			540mm (21.25")			625mm (25.98")			
		V8 electric turret	460mm(18.11")		540mm(21.25")			590mm(23.23")				
	Center height		230mm(9.06")			270mm(10.63")			315mm(12.40")			
	Width of bed		350mm (13.78")									
Headstock and Main	Range of spin	dle speeds	N	H: 3100~681R M: 680~153RF .: 152~33RPM	PM	<b>N</b>	H: 2250~491R M: 490~126RF .: 125~27RPN	PM	M: 330~93F	1RPM; 800~1 RPM; 175~53I PM; 52~10RPI	RPM Opt.	
	Spindle nose; internal taper		D1-6; 1:20			D1-8; 1:16			A2-11; 1:20			
	Spindle bore		56mm (2.20")			85mm (3.35")			105mm (4.13"); 153mm (6.02") Opt.			
	Cross slide travel (X axis)		280mm (11.02")			350mm (13.78")			350mm (13.78")			
	Longitudinal to	ravel (Z axis)	810mm (31.89")	1310mm (51.57")	1810mm (71.26")	810mm (31.89")	1310mm (51.57")	1810mm (71.26")	810mm (31.89")	1310mm (51.57")	1810mm (71.26")	
Cross-slide	AC servo (X axis)		6.3NM									
and Carriage	AC servo (Z axis)		6.3NM									
ana samage	Diameter of ball screw (X axis)		25mm (0.98") P5 C3									
	Diameter of ball screw (Z axis)		40mm (1.57") P10 C5									
	Rapid travel speed (X axis)		5m/min (196.85"/min)									
	Rapid travel speed (Z axis)		7m/min (275.59"/min)									
	Tool Station			Manual 4 way tool post Electric H4 turret Electric V8 turret								
-	Size of cutting tool		□25mm (0.98") □25mm (0.98") 18" □20mm (0.79"); 21"/25" □25mm (0.98")									
	Boring bar diameter		18" Ф25mm (0.98"); 21"/25" Ф40mm (1.57")									
	Quill diameter		75mm (2.95")									
Tailstock	Quill travel		170mm (6.69")									
	Quill Taper		Invo	tor AC 7 EVIA	/ /10UD)	Invo	MT #5	/ (10UD)	Invo	tor AC 11K/M	AC 11KW (15HP)	
	Main spindle	numn for headstock	IIIVei	rter AC 7.5KW	(IUNP)		rter AC 7.5KW 0.18KW (1/4 F	, ,	IIIVe	ILEI AC TIKW	(IDITP)	
	Forced Lube pump for headstock Coolant pump		0.12KW (1/6 HP)									
Tank Canacity		w/chip tray (Opt.)	47L/12.42 gal	70L/18.49 gal	90L/23.78 gal	47L/12.42 gal	70L/18.49 gal	90L/23.78 gal	47L/12.42 gal	70L/18.49 gal	90L/23.78 gal	
	Weight (Net/Gross) Approx. mm		2900/3300	3200/3700	3500/4100	3100/3500	3400/3900	3700/4300	3200/3600	3500/4000	3800/4400	
	0 (	lbs	6380/7260	7040/8140	7700/9020	6820/7700	7480/8580	8140/9460	7040/7920	7700/8800	8360/9680	
Measurements	Packing dime		285cm(113") 335cm(132") 385cm(152") 285cm(113") 335cm(132") 385cm(152") 285cm(113") 335cm(132") 385cm(152")									



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80	ATL 3060	ATL 3080	<b>ATL 30120</b> 770mm (30.31)	ATL 30160	ATL 3360	ATL 3380	ATL 33120	ATL 33160			
			1	840mm (33.07") 570mm (22.44")							
m )	1300mm (51.18")	1800mm (70.87")			1300mm (51.18")	1800mm (70.87")	2800mm (110.27")	3800mm (149.61")			
m )	1150mm (45.28")	1650mm (64.96")	2650mm (104.33")	3650mm (143.70")	1150mm (45.28")	1650mm (64.96")	2650mm (104.33")	3650mm (143.70")			
1	1600mm (62.99")			4100mm (161.42")	1600mm (62.99")	2100mm (82.68")	3100mm (122.05")	4100mm (161.42")			
		770mm (30.31")					800mm (31.50")				
		690mm(27.17")									
$\dashv$		385mm(15.16") 420mm(16.54") 450mm (17.72")									
ot.	H: 1500~331RPM; 800~176RPM Opt. M: 330~93RPM; 175~53RPM Opt. L: 92~20RPM; 52~10RPM Opt.				H: 1500~331RPM; 800~176RPM Opt.; 450~108RPM Opt. M: 330~93RPM; 175~53RPM Opt.; 107~31RPM Opt. L: 92~20RPM; 52~10RPM Opt.; 30~6RPM Opt.						
		, ' '					A2-11; 1:20 / A2-11; 1:20 / A2-15; 1:20				
t.		A2-11; 1:20 105mm (4.13"); 153mm (6.02") Opt.				105mm (4.13"); 153mm (6.02") Opt.; 230mm (9") Opt.					
		1001	iiii (1.10 ), 100iii	450mm (	(17.72")	10011111	1.10 ), 100111111 (	0.02 / Opt., 200mm (0 / Opt.			
ı	1500mm (59.06")	mm 2000mm 3000mm 4000mm			1500mm 2000mm 3		3000mm (118.11")	4000mm (157.48")			
				6.3N							
		11.6NM									
+	28mm (11.02") P5 C3 50mm (1.97") P10 C5										
+	5m/min (196.85"/min)										
	7m/min (275.59"/min)										
	Manual 4 way tool post Electric H4 turret					Electric V8 turret					
	□32mr	n (1.26")	□32	mm (1.26")	□25mm (0.98") Φ40mm (1.57")						
	105mm (4.13")										
	220mm (6.69")										
	MT #5										
	Inverter AC 15KW (20HP)					Inverter AC 15KW (20HP)					
_		0.18KW (1/4 HP) 0.18KW (1/4 HP)									
8	170L/44.91 gal	230L/60.76 gal	280L/73.97 gal	330L/87.18 gal	170L/44.91 gal	230L/60.76 gal	280L/73.97 gal	330L/87.18 gal			
0	4300/4800	4800/5400	5800/6600	6800/7800	4500/5000	5000/5600	6000/6800	7000/7800			
0	9460/10560	10560/11880	12760/14520	14960/17160	9900/11000	11000/12320		15400/17160			
2")	400cm(158")	450cm(178")	550cm(217")	650cm(256")	400cm(158")	450cm(178")	, ,	650cm(256")			
	225	225x225cm (88.59"x88.59")		225x245cm(88.59"x96.46")	225x225cm (88.59"x88.59")			225x245cm(88.59"x96.46")			