

# HIGH SPEED PRECISION LATHES

## AHL Series

AHL-1840/1860/1880  
-2140/2160/2180/21120

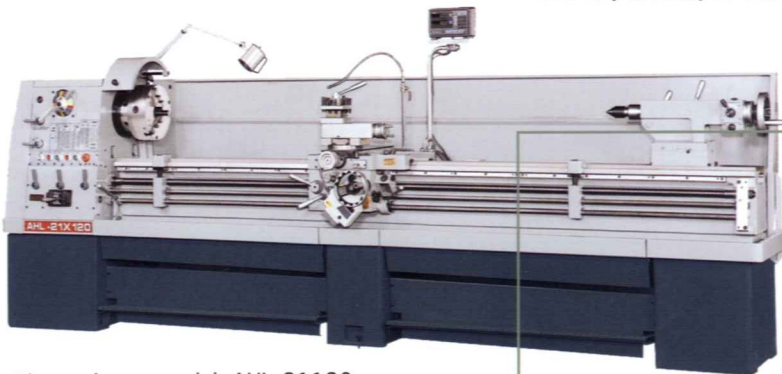
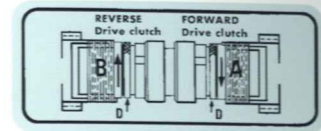


Photo shown model :AHL-21120



AHL-1840V/1860V/1880V  
-2140V/2160V/2180V/21120V

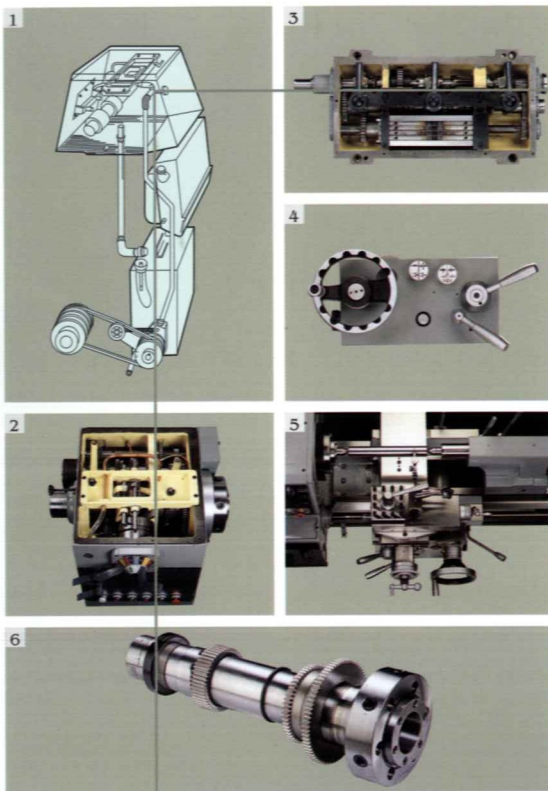


Photo shown model: AHL-2160V

- All models with mechanical clutch. (excluded E.V.S. model)
- All models with auto lubrication system to headstock & external tank for cooling the oil
- All models meet CE. (on request)
- All models with 80mm (3.149") spindle bore, ASA D1-8.

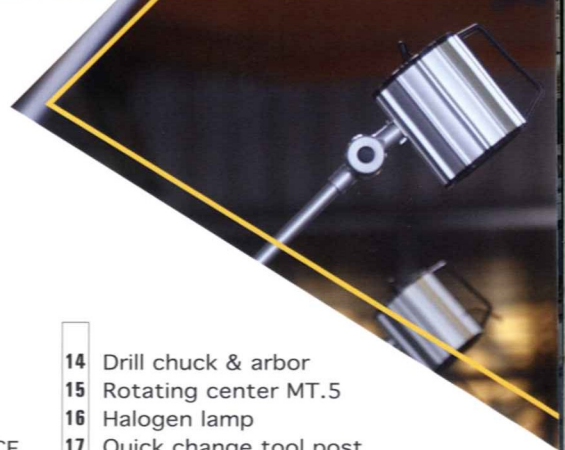
### FEATURES

- All castings are properly stabilized and stress relieved.
- Bed ways are hardened & ground to min. HS-70.
- Turcite B coating between the bed and carriage.
- Extremely low noise level.
- Foot brake pedal provided.
- Built-in coolant pump & fitting provided.
- CSS (constant surface speed control) on request for E.V.S. model
- Wider bed way which give absorbs vibration.



- 11) LUBRICATION • Oil sight window for efficient check of oil level action. • Pressure lubrication system in headstock can ensure it's lubricated and cooling when high speed cutting. • Splash lubrication in feed gearbox & apron.
- 12) HEADSTOCK • Housing is vibration-absorbent, deflection-free.  
• Gears are hardened & MAAG or REISHAUER ground.
- 13) GEAR BOX • Universal type allowing a wide range of inch, metric, M.P., D.P. threads without change gears. • Induction hardened & precision ground gears.
- 14) APRON • R/H or L/H wheel can be available on request.  
• Integrated automatic control for longitudinal & cross feeds, forward & reverse feeds.

- 15) CARRIAGE & SLIDE • Anti-Float design backlash eliminator fitted in cross slide nut. • Safety clutch at feed shaft. • One shot lubrication in carriage & top slide. • Dual dials supply inch system screw. • Metric dial supply metric system only.
- SAFETY FEATURES • Nylon safety gears in end train.  
• Shear pin in leadscrew.
- 16) HEAVY DUTY SPINDLE • Machined from forged alloy steel, hardened ground & dynamically balanced. • Three point support by high grade precision, machine tool taper roller & ball bearings.



**STANDARD ACCESSORIES:**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1 Backplate for 12" chuck</li> <li>2 Dead center MT.5</li> <li>3 Dead center MT.5 with carbide tip</li> <li>4 Spindle center sleeve MT.7</li> </ul> | <ul style="list-style-type: none"> <li>5 Level pads.....8 pcs</li> <li>6 Tool set &amp; Box</li> <li>7 Operation manual &amp; parts list</li> </ul> |
|--|---|

**OPTIONAL ACCESSORIES:**

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>1 3-Jaws scroll 12" chuck</li> <li>2 4-Jaws independent chuck 12" for 18....or 14" for 21...</li> <li>3 5C collet closer attachment</li> <li>4 5C collets (metric or inch)</li> <li>5 Chuck safety guard</li> <li>6 Hydraulic copying attachment</li> </ul> | <ul style="list-style-type: none"> <li>7 Tool post grinder attachment</li> <li>8 Taper turning attachment</li> <li>9 Electrical system for CE</li> <li>10 Protect cover on leadscrew for CE</li> <li>11 Steady rest w/ball bearing</li> <li>12 Follow rest w/bronze tip</li> <li>13 Faceplate 14"</li> </ul> | <ul style="list-style-type: none"> <li>14 Drill chuck &amp; arbor</li> <li>15 Rotating center MT.5</li> <li>16 Halogen lamp</li> <li>17 Quick change tool post</li> <li>18 Carriage micro stop set</li> <li>19 Digital read out system</li> <li>20 Full length splash guard</li> </ul> |
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<b>MODEL</b>		<b>AHL-1840</b> <b>AHL-1860</b> <b>AHL-1880</b>	<b>AHL-2140</b> <b>AHL-2160</b> <b>AHL-2180</b> <b>AHL-21120</b>	<b>AHL-1840V</b> <b>AHL-1860V</b> <b>AHL-1880V</b>	<b>AHL-2140V</b> <b>AHL-2160V</b> <b>AHL-2180V</b> <b>AHL-21120V</b>											
<b>Capacity</b>	Height of centers	230 mm (9.055")	271 mm (10.67")	230 mm (9.055")	271 mm (10.67")											
	Swing over bed	ø460 mm (18.11")	ø533 mm (20.98")	ø460 mm (18.11")	ø533 mm (20.98")											
	Swing in gap	ø710 mm (27.95")	ø790 mm (31.10")	ø710 mm (27.95")	ø790 mm (31.10")											
	Swing over cross slide	ø280 mm (11.02")	ø356 mm (14.01")	ø280 mm (11.02")	ø356 mm (14.01")											
<b>Headstock and Main Spindle</b>	Distance between centers	1000 mm (40")	1500 mm (60")	2000 mm (80")	1000 mm (40")	1500 mm (60")	2000 mm (80")	3000 mm (120")	1000 mm (40")	1500 mm (60")	2000 mm (80")	3000 mm (120")				
	Width of bed	345 mm (13.58")														
	Gap width in front of faceplate	250 mm (9.84")														
	Spindle nose, internal taper	D1-8, MT.No.7														
	Spindle center sleeve	MT. No.7 x MT. No.5														
	Spindle bore	ø80 mm (3.149")														
	Gear steps	16 steps / 20~1600 R.P.M.														
	Spindle speed: / Range	Green 20 65 210 670 Yellow 25 85 280 900 Red 35 115 380 1200 Blue 50 150 500 1600														
		"MATRIX" Disc clutch for Forward / Reverse      Infinitely variable L 18~55 R.P.M. M 55~180 R.P.M. 4 steps / MH 180~600 R.P.M. H 600~1800 R.P.M.														
	<b>Carriage</b>	Length on bed / Width of carriage	543 mm (21.37") / 542 mm (21.33")													
Cross slide travel		272 mm (10.7")														
Top slide travel		137 mm (5.39")														
<b>Threads and Feeds</b>	Whitworth threads: Kinds / Range	38 Kinds / 2~72 T.P.I.														
	Metric threads: Kinds / Range	40 Kinds / 0.4~14 mm														
	D.P. threads: Kinds / Range	21 Kinds / 8~44 D.P.														
	M.P. threads: Kinds / Range	18 Kinds / 0.3~3.5 M.P.														
	Longitudinal feeds	0.04~1.0 mm (0.0015"~0.04")														
<b>Tailstock</b>	Cross feeds	0.02~0.5 mm (0.00075"~0.02")														
	Quill diameter	ø76 mm (3")														
	Quill travel	165 mm (6.5")														
<b>Motor</b>	Taper of center	MT.No.5														
	Main spindle	10HP ----- 12.5HP ----- AC 9.375kW (12.5HP), Inverter														
	Forced lubrication for HD.	1/8HP ----- 1/4HP														
	Coolant pump	1/8HP														
<b>Measurement</b>	Weight (Net /Gross) Approx.	2000 kgs / 2350 kgs	2350 kgs / 2700 kgs	2700 kgs / 3100 kgs	2300 kgs / 2650 kgs	2650 kgs / 3000 kgs	3000 kgs / 3400 kgs	2000 kgs / 2350 kgs	2350 kgs / 2700 kgs	2700 kgs / 3100 kgs	2300 kgs / 2650 kgs	2650 kgs / 3000 kgs	3000 kgs / 3400 kgs			
	Packing sizes	Length	2535 mm (99.8")	3035 mm (119.5")	3535 mm (139.2")	2535 mm (99.8")	3035 mm (119.5")	3535 mm (139.2")	4624 mm (182")	2535 mm (99.8")	3035 mm (119.5")	3535 mm (139.2")	2535 mm (99.8")	3035 mm (119.5")	3535 mm (139.2")	4624 mm (182")
		Width x Height	Width 1120 mm (44.1") x Height 1745 mm (68.7")													

Specifications subject to change without notice.