

## HAFCO-METALMASTER AL-336



### Centre Lathe

Ø300 x 900mm Turning Capacity - Ø38mm Spindle Bore



## HAFCO-METALMASTER Centre Lathe AL-336



Headstock

METRIC THREAD PITCH LIST									
	B4	C4	C3	C2	A4	D2	E4	A2	E2
ME	0.4	0.45	0.5	0.5	0.7	0.75			
MEL	0.8	0.9	1	1.2	1.25	1.4	1.5	1.75	
MI	1.5	1.8	2	2.25	2.4	2.5	2.8	3	3.5
MIT	3.2	3.6	4	4.5	4.8	5	5.6	6	7

THREAD PER INCH									
	A2	A3	C3	A4	C3	C3	A5	B4	
Z	24	24	36	24	22	24	26	24	24
ME	4	4 1/2	5 1/2	5	5 1/2	6	6 1/2	7	7 1/2
MEL	8	9	10	11	12	13	14	15	
MI	16	18	20	22	24	26	28	30	
MIT	32	36	36	40	44	48	52	56	60

Metric Thread Chart

Position										
	E2	E3	A2	E4	E1	C3	C4	A5	D5	B5
SI	0.010	0.012	0.015	0.018	0.020	0.025	0.030	0.035	0.040	0.045
SI	0.030	0.032	0.035	0.040	0.045	0.050	0.055	0.060	0.065	0.070
SI	0.090	0.100	0.110	0.120	0.130	0.140	0.150	0.160	0.170	0.180
SI	0.220	0.240	0.260	0.280	0.300	0.320	0.340	0.360	0.380	0.400
SI	0.480	0.500	0.520	0.540	0.560	0.580	0.600	0.620	0.640	0.660
SI	0.800	0.840	0.880	0.920	0.960	1.000	1.040	1.080	1.120	1.160
SI	1.400	1.440	1.480	1.520	1.560	1.600	1.640	1.680	1.720	1.760
SI	2.000	2.040	2.080	2.120	2.160	2.200	2.240	2.280	2.320	2.360
SI	2.800	2.840	2.880	2.920	2.960	3.000	3.040	3.080	3.120	3.160
SI	3.600	3.640	3.680	3.720	3.760	3.800	3.840	3.880	3.920	3.960
SI	4.800	4.840	4.880	4.920	4.960	5.000	5.040	5.080	5.120	5.160
SI	6.000	6.040	6.080	6.120	6.160	6.200	6.240	6.280	6.320	6.360
SI	8.000	8.040	8.080	8.120	8.160	8.200	8.240	8.280	8.320	8.360
SI	10.000	10.040	10.080	10.120	10.160	10.200	10.240	10.280	10.320	10.360
SI	12.000	12.040	12.080	12.120	12.160	12.200	12.240	12.280	12.320	12.360
SI	16.000	16.040	16.080	16.120	16.160	16.200	16.240	16.280	16.320	16.360
SI	20.000	20.040	20.080	20.120	20.160	20.200	20.240	20.280	20.320	20.360
SI	24.000	24.040	24.080	24.120	24.160	24.200	24.240	24.280	24.320	24.360
SI	30.000	30.040	30.080	30.120	30.160	30.200	30.240	30.280	30.320	30.360
SI	36.000	36.040	36.080	36.120	36.160	36.200	36.240	36.280	36.320	36.360
SI	48.000	48.040	48.080	48.120	48.160	48.200	48.240	48.280	48.320	48.360
SI	60.000	60.040	60.080	60.120	60.160	60.200	60.240	60.280	60.320	60.360
SI	80.000	80.040	80.080	80.120	80.160	80.200	80.240	80.280	80.320	80.360
SI	100.000	100.040	100.080	100.120	100.160	100.200	100.240	100.280	100.320	100.360
SI	120.000	120.040	120.080	120.120	120.160	120.200	120.240	120.280	120.320	120.360
SI	160.000	160.040	160.080	160.120	160.160	160.200	160.240	160.280	160.320	160.360
SI	200.000	200.040	200.080	200.120	200.160	200.200	200.240	200.280	200.320	200.360
SI	240.000	240.040	240.080	240.120	240.160	240.200	240.240	240.280	240.320	240.360
SI	300.000	300.040	300.080	300.120	300.160	300.200	300.240	300.280	300.320	300.360
SI	360.000	360.040	360.080	360.120	360.160	360.200	360.240	360.280	360.320	360.360
SI	480.000	480.040	480.080	480.120	480.160	480.200	480.240	480.280	480.320	480.360
SI	600.000	600.040	600.080	600.120	600.160	600.200	600.240	600.280	600.320	600.360
SI	800.000	800.040	800.080	800.120	800.160	800.200	800.240	800.280	800.320	800.360
SI	1000.000	1000.040	1000.080	1000.120	1000.160	1000.200	1000.240	1000.280	1000.320	1000.360

Feed Charts

INDICATOR TABLE					
T	T-P-I	SCALE	T-P-I	SCALE	
0	4	8	8		
	16	24	40		
	32	40	56		
	48	56			
T	T-P-I	SCALE	T	T-P-I	SCALE
4 1/2	8	14	2-4-6-8		
5	4-8	15	4-8		
5 1/2	8	18	2-4-6-8		
6	4-8	19	8		
6 1/2	8	20	1-8		
7	4-8	22	2-4-6-8		
7 1/2	8	26	2-4-6-8		
9	4-8	28	1-8		
9 1/2	8	30	2-4-6-8		
10	2-4-6-8	36	1-8		
11	4-8	38	2-4-6-8		
12	1-8	44	1-8		
13	4-8	52	1-8		

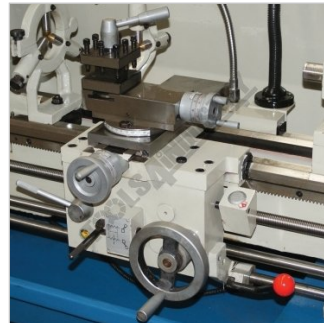
Thread Chase-Indicator Table

SPINDLE SPEED				
	1	2	3	
I	A	360	1810	1095
	B	100	500	300
	C	280	1400	840
II	A	235	1200	700
	B	65	330	200
	C	180	910	550

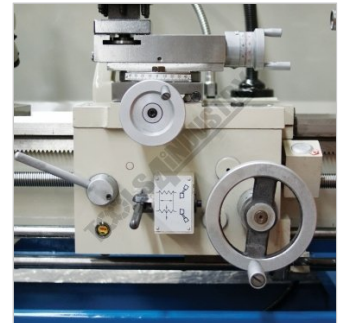
18 Spindle speeds  
65-1810rpm



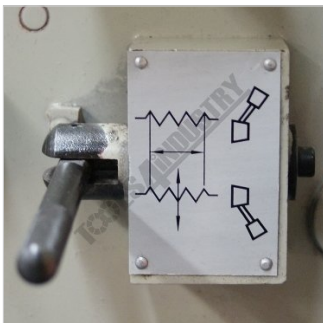
Chuck Guard With Safety  
Micro Switch



Saddle Right View



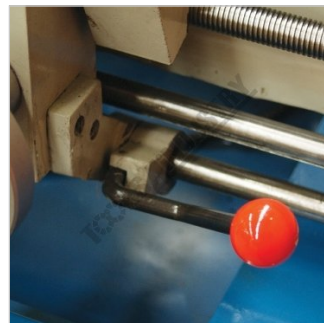
Saddle Control



Feed Engagement Lever



Thread Chasing Dial



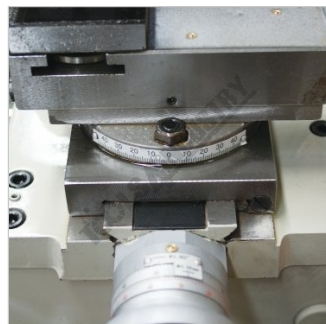
Forward Reverse Spindle  
Lever



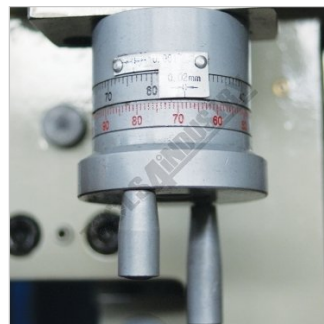
Toolpost



Compound Slide



Swivel Compound Slide



Compound Slide Hand Wheel



Crossslide Hand Wheel

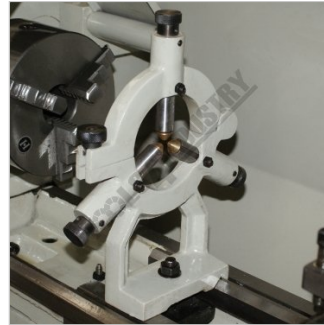
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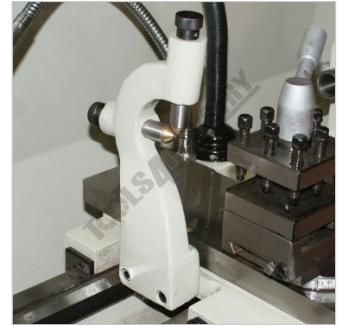
Saddle Hand Wheel



Lamp and Coolant Hose



3 Point Fixed Steady



2 Point Travelling Steady



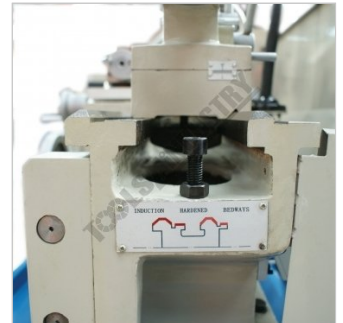
Tailstock



Tailstock Quill



Tailstock Hand Wheel



Induction Hardened Bedways

### Description

The AL-336 high quality centre lathe with a turning capacity of  $\text{Ø}300 \times 900\text{mm}$  is well known in the industry for its metal turning capabilities & is suitable for the model engineer or general maintenance workshops.

Featuring an induction hardened vee bedways are precision ground that allows the saddle to smoothly slide over it, full gear driven spindle speeds ranging from 65 - 1810rpm are selectable via the gear selector levers that are accessible from the front of headstock for your convenience & certainly makes this lathe package well sort after.

The 2hp single phase 240V motor is ample power to drive the 3 & 4 jaw chucks, auto feed & screw cutting thread system and the adjustable taper roller spindle bearings ensures accuracy & smooth operation even when under cutting load. A great range of cross, longitudinal feed speeds & metric & imperial screw cutting threads are easy accessible & selected via the separate gearbox located underneath the headstock for your convenience.

Supplied with a large range of standard accessories including a 150mm 3 jaw self centring chuck, 200mm 4 jaw independent chuck with D1-4 camlock for quick change over, face plate, spindle safety foot brake, chuck guard with safety interlock switch, thread chasing dial, rear splash guard, coolant pump system, work light, fixed & traveling steadies & that rounds up most of the great features on this fantastic centre lathe. The floor stand is equipped with a slide out swarf tray that makes it very easy to clean down and remove your waste material swarf.

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### Features

- Gear drive headstock for quick change of spindle speeds
- Precision 'V'-beds are hardened and ground, incorporating a rigid webbed casting
- Slide out swarf tray from front of machine
- Low voltage work light
- Foot operated spindle brake with safety cut out switch
- Change gears for metric and imperial thread cutting
- Oil sight glass for head stock and gearbox
- Adjustable taper roller bearings support the spindle
- 18 spindle speeds from 65 to 1810rpm
- Inching button is incorporated on the control panel for convenient spindle speed selection
- Enclosed quick action gearbox for thread cutting and auto feeding
- Powered longitudinal and cross feeds
- D1-4 camlock spindle for quick chuck changes and safe reverse direction turning. ISO standard
- Removable gap bed-way for larger diameter jobs
- Dual calibrated dials (except for saddle hand-wheel)
- Chuck & change gear guards are fitted with micro switches

### Includes

- 3-jaw chuck with reverse jaws
- 4-jaw chuck
- Face plate
- Fixed steady
- Travelling steady
- Coolant system
- Change gears
- Dead centres
- Thread-chasing dial
- Safety chuck guard
- Work light
- Stand
- Foot brake
- Rear splash guard & slide out swarf tray
- Tool box
- Instruction booklet

### Specifications

<b>ORDER CODE</b>	L682
<b>MODEL</b>	AL-336
<b>Swing Over Bed (mm)</b>	300
<b>Distance Between Centres (mm)</b>	900
<b>Spindle Bore (mm)</b>	38
<b>Swing In Gap (mm)</b>	450
<b>Swing Over Cross-slide (mm)</b>	180
<b>Digital Readout System Fitted</b>	Optional
<b>Quick Change Toolpost Fitted</b>	Optional
<b>Leadscrew Covers Fitted</b>	~
<b>Taper Turning Attachment</b>	~
<b>Coolant System</b>	Yes

## HAFCO-METALMASTER Centre Lathe AL-336

<b>Tool Height To Suit (mm)</b>	12
<b>Centre Height (mm)</b>	150
<b>Spindle Nose Size or Type</b>	D1-4 Camlock
<b>Bed Width (mm)</b>	180
<b>Headstock Spindle Taper (MT)</b>	5
<b>Tailstock Taper (MT)</b>	3
<b>Cross Slide Travel (mm)</b>	170
<b>Compound Slide Travel (mm)</b>	75
<b>Leadscrew Type</b>	Imperial
<b>Metric Cross Feed (X-Axis) (mm/rev)</b>	~
<b>Imperial Cross Feed (X-Axis) (inch/rev)</b>	0.009 - 0.236
<b>Metric Longitudinal Feed (Z-Axis) (mm/rev)</b>	~
<b>Imperial Longitudinal Feed (Z-Axis) (inch/rev)</b>	0.04 - 1.22
<b>Metric Thread Steps &amp; Pitch (No. / mm)</b>	32 (0.4 - 7)
<b>Imperial Thread Steps &amp; TPI (No. / TPI)</b>	36 (4 - 60)
<b>3 Jaw Chuck Diameter (mm)</b>	160
<b>4 Jaw Chuck Diameter (mm)</b>	200
<b>Spindle Steps / Speeds (No. / rpm)</b>	18 (65 - 1810)
<b>Motor Power (kW / hp)</b>	1.5 / 2
<b>Voltage / Amperage (V / amp)</b>	240 / 10
<b>Nett Weight (kg)</b>	595