

## 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	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	0.020	0.024	0.030	0.036	0.040	0.050	0.060	0.070	0.080	0.090
SI	0.040	0.048	0.060	0.072	0.080	0.100	0.120	0.140	0.160	0.180
SI	0.080	0.096	0.120	0.144	0.160	0.200	0.240	0.280	0.320	0.360
SI	0.160	0.192	0.240	0.288	0.320	0.400	0.480	0.560	0.640	0.720
SI	0.320	0.384	0.480	0.576	0.640	0.800	0.960	1.120	1.280	1.440
SI	0.640	0.768	0.960	1.152	1.280	1.600	1.920	2.240	2.560	2.880
SI	1.280	1.536	1.920	2.304	2.560	3.200	3.840	4.480	5.120	5.760
SI	2.560	3.072	3.840	4.608	5.120	6.400	7.680	8.960	10.240	11.520
SI	5.120	6.144	7.680	9.216	10.240	12.800	15.360	17.920	20.480	23.040
SI	10.240	12.288	15.360	18.432	20.480	25.600	30.720	35.840	40.960	46.080
SI	20.480	24.576	30.720	36.864	40.960	51.200	61.440	71.680	81.920	92.160
SI	40.960	49.152	61.440	73.728	81.920	102.400	122.880	143.360	163.840	184.320
SI	81.920	98.304	122.880	147.456	163.840	204.800	245.760	286.720	327.680	368.640
SI	163.840	196.608	245.760	294.912	327.680	409.600	491.520	573.440	655.360	737.280
SI	327.680	393.216	491.520	589.824	655.360	819.200	983.040	1146.880	1310.720	1474.560
SI	655.360	786.432	983.040	1179.648	1310.720	1638.400	1966.080	2293.760	2621.440	2949.120
SI	1310.720	1572.864	1966.080	2347.296	2621.440	3276.800	3932.160	4587.520	5242.880	5898.240
SI	2621.440	3145.728	3932.160	4694.592	5242.880	6553.600	7864.320	9175.040	10485.760	11796.480
SI	5242.880	6291.456	7864.320	9389.184	10485.760	13107.200	15728.640	18350.080	20971.520	23592.960
SI	10485.760	12582.912	15728.640	18916.368	20971.520	26172.800	31374.240	36575.680	41777.120	46978.560
SI	20971.520	25165.824	31374.240	37569.696	41777.120	52345.600	62914.080	73482.560	84051.040	94619.520
SI	41777.120	50331.648	62914.080	75879.392	84051.040	104857.600	125664.160	146470.720	167277.280	188083.840
SI	83554.240	100663.296	125664.160	151327.784	167277.280	209715.200	251653.120	294091.040	336528.960	378966.880
SI	167277.280	201326.592	251653.120	302655.568	336528.960	417771.200	491656.240	573482.080	655307.920	737133.760
SI	334554.560	402653.184	491656.240	585311.136	655307.920	819200.000	983040.480	1146880.960	1310720.960	1474560.960
SI	655307.920	786431.616	983040.480	1179642.272	1310720.960	1638400.000	1966080.960	2293760.960	2621440.960	2949120.960
SI	1310720.960	1572863.232	1966080.960	2347284.544	2621440.960	3276800.000	3932160.960	4587520.960	5242880.960	5898240.960
SI	2621440.960	3145726.464	3932160.960	4694569.088	5242880.960	6553600.000	7864320.960	9175040.960	10485760.960	11796480.960
SI	5242880.960	6291452.928	7864320.960	9389138.176	10485760.960	13107200.000	15728640.960	18350080.960	20971520.960	23592960.960
SI	10485760.960	12582905.856	15728640.960	18916276.352	20971520.960	26172800.000	31374240.960	36575680.960	41777120.960	46978560.960
SI	20971520.960	25165811.712	31374240.960	37569552.704	41777120.960	52345600.000	62914480.960	73482960.960	84051840.960	94619920.960
SI	41777120.960	50331623.424	62914480.960	75879105.408	84051840.960	104857600.000	125664160.960	146470720.960	167277280.960	188083840.960
SI	83554240.960	100663246.848	125664160.960	151327710.816	167277280.960	209715200.000	251653280.960	294091360.960	336529440.960	378967520.960
SI	167277280.960	201326573.696	251653280.960	302655521.632	336529440.960	417771200.000	491656560.960	573482112.000	655307616.000	737133120.000
SI	334554560.960	402653147.392	491656560.960	585311043.264	655307616.000	819200000.000	983040640.960	1146880640.960	1310720640.960	1474560640.960
SI	655307616.000	786431294.784	983040640.960	1179642086.528	1310720640.960	1638400000.000	1966080640.960	2293760640.960	2621440640.960	2949120640.960
SI	1310720640.960	1572863289.568	1966080640.960	2347284173.056	2621440640.960	3276800000.000	3932160640.960	4587520640.960	5242880640.960	5898240640.960
SI	2621440640.960	3145726579.136	3932160640.960	4694568346.112	5242880640.960	6553600000.000	7864320640.960	9175040640.960	10485760640.960	11796480640.960
SI	5242880640.960	6291453158.272	7864320640.960	9389136692.224	10485760640.960	13107200000.000	15728640640.960	18350080640.960	20971520640.960	23592960640.960
SI	10485760640.960	12582906316.544	15728640640.960	18916273384.448	20971520640.960	26172800000.000	31374240640.960	36575680640.960	41777120640.960	46978560640.960
SI	20971520640.960	25165812633.088	31374240640.960	37569546768.896	41777120640.960	52345600000.000	62914480640.960	73482960640.960	84051840640.960	94619920640.960
SI	41777120640.960	5033162526.176	62914480640.960	75879109537.792	84051840640.960	104857600000.000	125664160640.960	146470720640.960	167277280640.960	188083840640.960
SI	83554240640.960	10066325522.352	125664160640.960	151327719075.584	167277280640.960	209715200000.000	251653280640.960	294091360640.960	336529440640.960	378967520640.960
SI	167277280640.960	20132657044.704	251653280640.960	302655538151.168	336529440640.960	417771200000.000	491656560640.960	5734821120640.960	6553076160640.960	7371331200640.960
SI	334554560640.960	40265314089.408	491656560640.960	585311076302.336	6553076160640.960	819200000000.000	983040640640.960	1146880640640.960	1310720640640.960	1474560640640.960
SI	6553076160640.960	78643128178.816	983040640640.960	1179642152604.672	1310720640640.960	1638400000000.000	1966080640640.960	2293760640640.960	2621440640640.960	2949120640640.960
SI	1310720640640.960	157286328357.632	1966080640640.960	2347284305209.344	2621440640640.960	3276800000000.000	3932160640640.960	4587520640640.960	5242880640640.960	5898240640640.960
SI	2621440640640.960	314572656715.264	3932160640640.960	4694568610418.688	5242880640640.960	6553600000000.000	7864320640640.960	9175040640640.960	10485760640640.960	11796480640640.960
SI	5242880640640.960	629145313430.528	7864320640640.960	9389137220837.376	10485760640640.960	13107200000000.000	15728640640640.960	18350080640640.960	20971520640640.960	23592960640640.960
SI	10485760640640.960	1258290626861.056	15728640640640.960	18916274441674.752	20971520640640.960	26172800000000.000	31374240640640.960	36575680640640.960	41777120640640.960	46978560640640.960
SI	20971520640640.960	2516581253722.112	31374240640640.960	37569548883349.504	41777120640640.960	52345600000000.000	62914480640640.960	73482960640640.960	84051840640640.960	94619920640640.960
SI	41777120640640.960	503316257484.224	62914480640640.960	75879109766699.008	84051840640640.960	104857600000000.000	125664160640640.960	146470720640640.960	167277280640640.960	188083840640640.960
SI	83554240640640.960	1006632594968.448	125664160640640.960	151327719533398.016	167277280640640.960	209715200000000.000	251653280640640.960	294091360640640.960	336529440640640.960	378967520640640.960
SI	167277280640640.960	2013265719936.896	251653280640640.960	302655539066796.032	336529440640640.960	417771200000000.000	491656560640640.960	5734821120640640.960	6553076160640640.960	7371331200640640.960
SI	334554560640640.960	4026531439873.792	491656560640640.960	585311078133592.064	6553076160640640.960	819200000000000.000	983040640640640.960	1146880640640640.960	1310720640640640.960	1474560640640640.960
SI	6553076160640640.960	7864312879747.584	983040640640640.960	1179642156267184.128	1310720640640640.960	1638400000000000.000	1966080640640640.960	2293760640640640.960	2621440640640640.960	2949120640640640.960
SI	1310720640640640.960	15728632875495.168	1966080640640640.960	2347284312534368.256	2621440640640640.960	3276800000000000.000	3932160			

## HAFCO-METALMASTER Centre Lathe AL-336



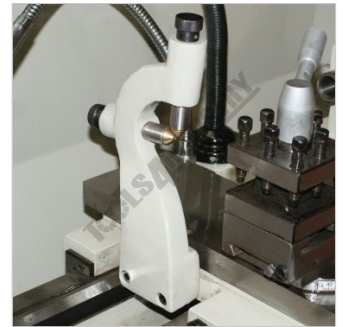
Saddle Hand Wheel



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.

## HAFCO-METALMASTER Centre Lathe AL-336

### 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