

## 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
MIL	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	
MIL	32	36	38	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	26214.400	31457.280	36700.160	41943.040	47185.920
SI	20971.520	25165.824	31457.280	37751.736	41943.040	52428.800	62913.600	73398.400	83883.200	94368.000
SI	41943.040	50331.648	62913.600	75463.472	83883.200	104857.600	125829.120	146800.640	167772.160	188743.680
SI	83883.200	100663.296	125829.120	151346.944	167772.160	209715.200	251656.320	293597.440	335538.560	377479.680
SI	167772.160	201326.592	251656.320	302693.888	335538.560	419430.400	503316.640	587202.880	671089.120	754975.360
SI	335538.560	402653.184	503316.640	605387.776	671089.120	838832.000	1006632.320	1174432.640	1342232.960	1510033.280
SI	671089.120	805306.368	1006632.320	1206775.552	1342232.960	1677721.600	2013265.920	2348810.240	2684354.560	2919898.880
SI	1342232.960	1606612.736	2013265.920	2413551.104	2684354.560	3355385.600	4026531.840	4697678.080	5368824.320	5939970.560
SI	2684354.560	3213225.472	4026531.840	4827102.208	5368824.320	6710891.200	8053062.400	9395233.600	10737404.800	11979576.000
SI	5368824.320	6426450.944	8053062.400	9654204.416	10737404.800	13422321.600	16066123.200	18710024.800	21353926.400	23597828.000
SI	10737404.800	12852901.888	16066123.200	19308407.832	21353926.400	26843545.600	32132256.320	37421057.600	42709958.400	46998859.200
SI	21353926.400	25705803.776	32132256.320	38616815.664	42709958.400	53688211.200	64264512.640	74840814.080	85417115.520	93993416.960
SI	42709958.400	51411607.552	64264512.640	77233631.328	85417115.520	107374044.800	128529016.320	149683987.840	170838959.360	185993930.880
SI	85417115.520	102492235.104	128529016.320	154467272.656	170838959.360	213539211.200	257058022.720	299576834.240	342095645.760	374614457.280
SI	170838959.360	204984470.208	257058022.720	308934545.312	342095645.760	427099222.400	514116044.800	601136864.000	688157683.200	746178502.400
SI	342095645.760	409968940.416	514116044.800	617869090.624	688157683.200	854171164.800	1024922369.600	1195673569.600	1366424969.600	1477176369.600
SI	688157683.200	829937880.832	1024922369.600	1235738181.248	1366424969.600	1708389229.600	2049844439.200	2391299648.800	2732754858.400	2914307229.600
SI	1366424969.600	1631879961.664	2049844439.200	2471476362.496	2732754858.400	3420956369.600	4099689439.200	4778422508.800	5457188548.400	5848374729.600
SI	2732754858.400	3278239923.328	4099689439.200	5142952724.992	5848374729.600	7351145479.200	8757899878.400	10167655027.200	11577410176.000	12397165324.800
SI	5457188548.400	6537887846.656	8757899878.400	10715905449.984	12397165324.800	15463431958.400	18569299756.800	21665168185.600	24761036614.400	26256905043.200
SI	10715905449.984	12885467816.000	16569299756.800	20420587839.968	23516730649.600	29354299916.800	35181859833.600	41008919750.400	46835979667.200	49652539584.000
SI	21354299916.800	25770935632.000	35181859833.600	43641175679.936	49652539584.000	61786909062.400	73921278566.400	86056048044.800	98190817523.200	103916317056.000
SI	42709922296.000	51541871264.000	73921278566.400	90762351359.872	103916317056.000	128854678160.000	153793039272.000	178731400488.000	203669761704.000	213916634304.000
SI	85417116496.000	102383742528.000	153793039272.000	188624702719.744	213916634304.000	268435454720.000	321322569440.000	374210574576.000	427099689712.000	446437368608.000
SI	170838932992.000	204984443936.000	321322569440.000	397249485439.488	446437368608.000	556871719040.000	666508078080.000	776144387520.000	885780696960.000	928917006400.000
SI	342095665984.000	409968943872.000	601136864000.000	746498970878.976	846437368608.000	1056871719040.000	1267304438080.000	1477737107040.000	1688169776000.000	1760334012800.000
SI	688157683968.000	829937881744.000	1235738181760.000	1514296941757.952	1714373686080.000	2135429991680.000	2556929975680.000	2979429960640.000	3401929945600.000	3536336025600.000
SI	1366424969920.000	1631879961728.000	2471476363520.000	3017493883515.904	3420956369600.000	4270992229600.000	5141160448000.000	6011368640000.000	6881576832000.000	7196340128000.000
SI	2732754859840.000	3278239923456.000	4965253957000.000	6011368647031.808	6881576832000.000	8541711649600.000	10249223696000.000	11956735696000.000	13664249696000.000	14391663430400.000
SI	5457188549600.000	6537887846912.000	9819081754000.000	11956735696000.000	13664249696000.000	17083892296000.000	20498444392000.000	23912996488000.000	27327548584000.000	28483747296000.000
SI	10715905449600.000	12885467816000.000	19308407832000.000	23516730649600.000	26843545472000.000	33553856000000.000	40265316800000.000	46976780800000.000	53688241600000.000	56483747296000.000
SI	21353921196000.000	25770935632000.000	37421057457600.000	45142969417579.520	51411604480000.000	64264512000000.000	77067424000000.000	90870240000000.000	104673056000000.000	109347368608000.000
SI	42709922392000.000	51541871264000.000	73921278566400.000	90762351359878.072	103916634304000.000	128854678160000.000	153793039272000.000	178731400488000.000	203669761704000.000	213916634304000.000
SI	85417116784000.000	102383742528000.000	153793039272000.000	188624702719756.144	213916634304000.000	268435454720000.000	321322569440000.000	374210574576000.000	427099689712000.000	446437368608000.000
SI	170838933568000.000	204984443936000.000	301136864000000.000	364498970878952.288	414373686080000.000	514295871904000.000	614212785664000.000	714131885344000.000	814050985024000.000	848917006400000.000
SI	342095667136000.000	409968943872000.000	601136864000000.000	736498970878903.696	846437368608000.000	1056871719040000.000	1267304438080000.000	1477737107040000.000	1688169776000000.000	1760334012800000.000
SI	688157684272000.000	829937881744000.000	1235738181760000.000	1514296941757807.392	1714373686080000.000	2135429991680000.000	2556929975680000.000	2979429960640000.000	3401929945600000.000	3536336025600000.000
SI	1366424968544000.000	1631879961728000.000	2471476363520000.000	3017493883515614.784	3420956369600000.000					

**HAFCO-METALMASTER Centre Lathe AL-336**



Saddle Hand Wheel



Lamp and Coolant Hose



3 Point Fixed Steady



2 Point Travelling Steady



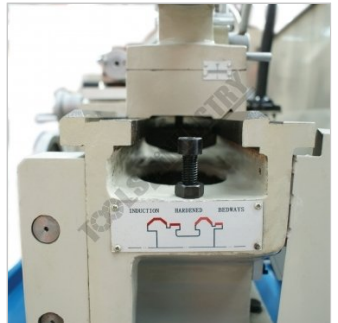
Tailstock



Tailstock Quill



Tailstock Hand Wheel



Induction Hardened Bedways

**Description**

The AL-336 high quality centre lathe with a turning capacity of  $\varnothing 300 \times 900\text{mm}$  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