



**Colchester & Harrison**

Centre Lathes

# Engineered for efficiency

## Colchester & Harrison manual lathes are renowned worldwide for quality and reliability.

Built to withstand rugged, heavy duty use, our lathes give years of outstanding service with the absolute minimum of maintenance. At the same time, all Colchester & Harrison manual lathes are capable of very fine precision turning.

Our VS manual lathes produce outstanding results not least due to their infinitely variable spindle speed feature. The standard ACU-RITE CSS DRO allows exactly the right speed for every job so tools perform better, cycle times are optimised and quality improves.

Our entire range gives you exceptional ease of use and a huge choice of optional and ancillary equipment guarantees top of the range performance even for the most complex and challenging jobs.

With our investment in modern machine tool manufacturing technology, plant and assembly techniques, coupled with the latest quality-driven methodology and business practices, Colchester & Harrison are able to provide the

same traditional solution to customers as yesteryear. However, today, customers have the additional benefit of a machine tool building company driven by the ambition of a 'world-class' strategy.



## Student / M300

- Fully geared headstock with 12 spindle speeds from 40-2500rpm
- 2.2kW (3hp) spindle motor
- 635mm and 1000mm bed length options
- 330mm swing over bed
- D1-4 Camlock spindle nose
- Induction hardened and ground bed
- Fully universal gearbox with most metric and imperial threads catered for
- Built to standards DIN 8606 and BS4656 Part 1
- Optional DRO (no CSS)
- Super high precision taper roller spindle bearings
- The "number 1" choice for training establishments worldwide

## Master VS\* / V350

- New ergonomic design for optimum performance
- Advanced variable speed spindle drive from 17-3250rpm in 3 infinitely variable ranges
- 7.5kW (10hp) spindle motor
- 650mm gap bed
- 350mm swing over bed
- D1-4 Camlock spindle nose
- Induction hardened and ground bed
- Precision hardened and ground gears in headstock
- Built to meet all known world safety standards
- The ultimate variable speed training lathe
- CSS DRO as standard



## Triumph VS\* / V390

- New ergonomic design for optimum performance
- 3 range variable speed drive from 14-2500rpm
- 7.5kW (10hp) spindle motor
- 1250mm gap bed
- 400mm swing over bed
- D1-6 Camlock spindle
- Induction hardened and ground bed
- Precision hardened and ground gears in headstock
- The world's "best known" centre lathe
- CSS DRO as standard



\* Geared head version available



## Mascot VS / V460

- Medium duty, variable speed spindle drive in 3 ranges from 20-2000rpm
- 11kW (15hp) spindle motor
- 1000, 1500 and 2000mm gap bed length options
- 460mm swing over bed
- D1-8 Camlock spindle nose
- Induction hardened and ground bed
- Precision hardened and ground gears in headstock
- Fingertip traverse control via saddle mounted joystick
- The “number 1” toolroom/general purpose centre lathe
- CSS DRO as standard



## Mastiff VS / V550

- 104mm spindle bore
- Heavy duty, variable speed spindle drive in 3 ranges from 18-1800rpm
- 11kW (15hp) spindle motor
- 1000mm to 3000mm gap bed length options
- 554mm swing over bed
- D1-11 Camlock spindle nose
- Induction hardened and ground bed
- Precision hardened and ground gears in headstock
- Fingertip traverse control via joystick
- World’s “number 1” heavy duty production centre lathe
- CSS DRO as standard



## Magnum / V660

- 104mm spindle bore with 155mm option
- Heavy duty 22kW (30hp) spindle motor
- 1500 to 4000mm gap bed length options available
- Heavy duty variable speed spindle drive in 3 ranges from 18 -1800 rpm (1000rpm on 155mm bore option)
- 670mm swing over bed
- Induction hardened & ground bed
- Precision hardened and ground gears in headstock



## Magnum LS / V800

- 104mm spindle bore with 155 and 230mm options
- Heavy duty 22kW (30hp) spindle motor
- 1500 to 4000mm gap bed length options now available
- Heavy duty variable speed spindle drive in 3 ranges from 18 -1800rpm (1000rpm on 155mm bore and 600rpm on 230mm options)
- 820mm swing over bed
- Induction hardened & ground bed
- Precision hardened and ground gears in headstock

# Specifications

## Digital Readout with Constant Surface Speed Features

- Standard on all VS series lathes +
- DRO automatically adjusts spindle speed to maintain constant surface cutting speed during facing operations
- Lock axis feature to establish tool offsets with tool under load
- Instant conversions for radius/diameter and inch/metric
- Position-TRAC™ a unique feature to re-establish workpiece zero after power loss
- 2axis or 3axis LCD display with graphics and conversational prompt
- Absolute and incremental displays with pre set and zero reset
- Taper calculator
- 16 Tool offsets/diameter
- Near zero warning
- Intuitive operation with multi-language support
- Accuracy  $\pm 5\mu\text{m}$ , repeatability within 1 count

	Student / M300	Master VS / V350
Height of Centres	167mm	170mm
Bed Length Between Centre++	635/1000mm	650mm
Swing over Bed	330mm	350mm
Swing in Gap	480mm	535mm
Swing over Cross Slide	210mm	196mm
Spindle Bore	40mm	42mm
Spindle Nose Mounting	D1-4 Camlock	D1-4 Camlock
Morse Taper in Nose Bush	No. 3 MT	No. 3 MT
Number of Speed Ranges	12	3 Variable
Range	40-2500rpm	17-3250rpm
Motor	2.2kW	7.5kW
Number of Metric Pitches	45	51
Range of Metric Pitches	0.2 to 14mm	0.2 to 14mm
Number of Imperial Pitches	52	56
Range of Imperial Pitches	2 to 56 TPI	2 to 56 TPI
Number of Diametral Pitches	18	20
Range of Diametral Pitches	8 to 56 DP	8 to 56 DP
Number of Module Pitches	18	20
Range of Module Pitches	0.3 to 3.5 MOD	0.2 to 3.5 MOD
Width over Bedways	140mm	318mm
Travel of Cross Slide	135mm	250mm
Travel of Top Slide	90mm	90mm
Tailstock Travel	100mm	140mm
Taper in Tailstock Barrel	No. 3 MT	No. 4 MT
Weight (Net)	640 / 720kg	1480kg
Dimensions L x W x H	1.68 x .97 x 1.40 2.13 x 1.02 x 1.45	2.03 x 1.35 x 1.65

Illustrations and specifications are not binding in detail. The designs are subject to modification and improvement without notice.

+ Options on the Magnum / V660 and Magnum LS / V800 versions.

+ + Dependant on tailstock, centres and tooling specified.



Triumph VS / V390	Mascot VS / V460	Mastiff VS / V550	Magnum / V660	Magnum LS / V800
195mm	230mm	280mm	335mm	412mm
1200mm	1000/1500/2000mm	1000/1500/2000/3000mm	1500/2000/3000/4000mm	
400mm	460mm	554mm	670mm	820mm
585mm	730mm	830mm	910mm	1060mm
246mm	270mm	370mm	430mm	580mm
54mm	76mm	104mm	104 / 155mm	104 / 155 / 230mm
D1-6 Camlock	D1-8 Camlock	D1-11 Camlock	D1-11 / A2-11	D1-11 / A2-11 / A2-15
No. 4 MT	No. 5 MT	No. 5 MT	No. 6 MT	No. 6 MT
3 Variable	3 Variable	3 Variable	3 Variable	3 Variable
14-2500rpm	20-2000rpm	18-1800rpm	18-1800 / 1000 rpm	18-1800/1000/600 rpm
7.5kW	11kW	11kW	22kW	22kW
51	66	66	59	59
0.2 to 14mm	0.2 to 14mm	0.2 to 14mm	0.2 to 14mm	0.2 to 14mm
56	73	73	51	51
2 to 56 TPI	2 to 84 TPI	2 to 84 TPI	2 to 84 TPI	2 to 84 TPI
20	27	27	27	27
8 to 56 DP	8 to 72 DP	8 to 72 DP	8 to 72 TPI	8 to 72 TPI
20	20	20	20	20
0.2 to 3.5 MOD	0.2 to 3.5 MOD	0.2 to 3.5 MOD	0.2 to 3.5mm	0.2 to 3.5mm
318mm	400mm	400mm	480mm	480mm
250mm	300mm	300mm	406mm	406mm
125mm	195mm	195mm	165mm	165mm
140mm	180mm	180mm	300mm	300mm
No. 5 MT	No. 6 MT	No. 6 MT	No. 6 MT	No. 6 MT
1725kg	2730 / 2870 / 3120kg	2820 / 2890 / 3120 / 3700kg	3700 / 4000 / 4700 / 5400kg	4400 / 4900 / 6000 / 7100kg
2.72 x 1.35 x 1.65	2.75 / 3.25 / 3.75 x 1.70 x 2.05	2.75 / 3.25 / 3.75 / 4.75 x 1.70 x 2.10	3.85 / 4.35 / 5.35 / 6.35 / 7.35 / 8.3 x 1.8 x 1.9	3.85 / 4.35 / 5.35 / 6.35 x 1.8 x 1.9

# Support & Service



## Buy Spare Parts

With over £4 million of Colchester, Harrison & Clausing spares, our experts are there to help you identify the correct replacement part and ensure prompt delivery every time.



## Valuable Training

Whether it's when your new machine arrives, or more intensive courses to ensure that you make the most of your machine tool, our applications specialists are there to support you.



## Reliable Servicing

Our factory trained engineering team are always available to support your machine tool, either through our dedicated helpdesk or out in the field.



## Delivery & Installation

Our highly trained transport and service teams are on-hand to effectively deliver, install and commission your machine tool exactly to your satisfaction.



## Machine Tool Finance

Colchester Machine Tool Solutions offer a range of innovative and highly competitive finance packages to support your machine tool purchase.



## Preventative Maintenance

We work closely with you on a range of preventative maintenance contracts ensuring your assets are utilised fully, whether for one machine or a workshop of our machine tools.



If you would like to arrange a demonstration or discuss your specific needs, please contact our sales team on

01924 415 000 | [mail@colchester.co.uk](mailto:mail@colchester.co.uk)



Certificate No. FM12345

Colchester Machine Tool Solutions | Union Street | Heckmondwike | West Yorkshire | WF16 0HL