Colchester
The Colchester Lathe Company Ltd

MASTIFF
1400

Heavy Duty Centre Lathe

THE 600 GROUP

www.OzarkToolManuals.com
The Colchester Mastiff 1400 is a 535mm (21in) Swing Centre Lathe with a between centres capacity of up to 3 metres (120in). The heavy duty spindle arrangement makes the machine ideal for both production and repair work applications on heavier workpieces.

- 16 Spindle Speeds 18—1400 r.p.m. in Geometric Progression
- 12.5 h.p. (9.3kw) motor
- 11in. D.I. Camlock spindle nose mounting — 90mm Spindle Bore
- Induction hardened and precision ground bed.
**Headstock**
- Hardened and Reishauer-ground gears on main transmission
- Multi-plate clutches
- Failsafe electromagnetic spindle brake
- Spindle mounted on Garnet micron precision machine tool spindle bearings guaranteeing roundness accuracy better than 2 microns

**Gearbox**
- Totally enclosed Universal gearbox
- Sliding gear principle optimises mechanical efficiency and minimises wear
- Hardened gears and clutches

**Apron**
- Totally enclosed oil bath, double wall apron
- Automatic feed trip
- Feed reverse plunger
- Handwheel disengages for rapid screwcutting

**Saddle and Slides**
- Micrometer dials — 0.02mm (0.001in)
  fitted to top and cross slide
- Cross slide nut incorporates backlash eliminator
- Bedway wipers fitted as standard
# Specification

<table>
<thead>
<tr>
<th>Height of Centres</th>
<th>10½ in (270mm)</th>
<th>Width of Bedways</th>
<th>13½ in (340mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swing over bed</td>
<td>21 in (535mm)</td>
<td>Total travel of cross slide</td>
<td>11 in (280mm)</td>
</tr>
<tr>
<td>Swing over cross slide</td>
<td>14½ in (370mm)</td>
<td>Total travel of top slide</td>
<td>6 in (150mm)</td>
</tr>
<tr>
<td>Spindle bore (max. bar dia.)</td>
<td>3½ in (90mm)</td>
<td>Total travel of tailstock barrel</td>
<td>9 in (230mm)</td>
</tr>
<tr>
<td>Spindle nose mounting</td>
<td>11 in D1 Camlock</td>
<td>Number of spindle speeds</td>
<td>16</td>
</tr>
<tr>
<td>Taper in spindle nose bush</td>
<td>No. 5 Morse</td>
<td>Range of spindle speeds</td>
<td>18-1400 r.p.m.</td>
</tr>
<tr>
<td>Taper in tailstock barrel</td>
<td>No. 5 Morse</td>
<td>Overall width of machine</td>
<td>42 in (1070mm)</td>
</tr>
<tr>
<td>GAP BED MODELS</td>
<td></td>
<td>Overall height of machine</td>
<td>55 in (1397mm)</td>
</tr>
<tr>
<td>Swing in gap</td>
<td>32 in (815mm)</td>
<td>Drive</td>
<td>Vee belts and clutches</td>
</tr>
<tr>
<td>Width in front of faceplate</td>
<td>8½ in (215mm)</td>
<td>Motor</td>
<td>12.5 H.P. (9.3kw)</td>
</tr>
<tr>
<td>Threads:</td>
<td></td>
<td>Range of sliding feeds per rev. of spindle</td>
<td>0.002 in - 0.023 in (0.06 mm - 1.0 mm)</td>
</tr>
<tr>
<td>No. of Whitworth threads</td>
<td>38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range of Whitworth threads</td>
<td>2-72 t.p.i.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of DIametral pitches</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range of DIametral pitches</td>
<td>8-60 D.P.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Metric pitches</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range of Metric pitches</td>
<td>0.4-14 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Module pitches</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range of Module pitches</td>
<td>0.3-3.5 mod.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Standard Equipment** (unless otherwise specified): Centre bush - Two No. 5 Morse Taper centres - Thread indicator - Electrical equipment for standard 3 phase 50 cycle a.c. supply, 110 volt control - Set of spanners and keys - Instruction and spare parts manual - Accuracy chart - Electrical coolant, pump, tank and fittings - Emergency Stop Button - Lockable Isolator switch - One-shot saddle lubrication - Electro-magnetic spindle brake - Splash guard - 3 Jaw Chuck - Quick Change Toolpost.

## Models available

<table>
<thead>
<tr>
<th>Code Word</th>
<th>Bed Type</th>
<th>Distance between Centres</th>
<th>Overall Length of Machine</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASTIFF 1400 40-straight</td>
<td>straight</td>
<td>40 in</td>
<td>98 in</td>
<td>5110 lb</td>
</tr>
<tr>
<td>MASTIFF 1400 40-gap</td>
<td>gap</td>
<td>1000 mm</td>
<td>2520 mm</td>
<td>2320 kg</td>
</tr>
<tr>
<td>MASTIFF 1400 60-straight</td>
<td>straight</td>
<td>60 in</td>
<td>118 in</td>
<td>5440 lb</td>
</tr>
<tr>
<td>MASTIFF 1400 60-gap</td>
<td>gap</td>
<td>1500 mm</td>
<td>3030 mm</td>
<td>2470 kg</td>
</tr>
<tr>
<td>MASTIFF 1400 80-straight</td>
<td>straight</td>
<td>80 in</td>
<td>138 in</td>
<td>5770 lb</td>
</tr>
<tr>
<td>MASTIFF 1400 80-gap</td>
<td>gap</td>
<td>2000 mm</td>
<td>3535 mm</td>
<td>2620 kg</td>
</tr>
<tr>
<td>MASTIFF 1400 120-straight</td>
<td>straight</td>
<td>120 in</td>
<td>182 in</td>
<td>7160 lb</td>
</tr>
<tr>
<td>MASTIFF 1400 120-gap</td>
<td>gap</td>
<td>3000 mm</td>
<td>4600 mm</td>
<td>3250 kg</td>
</tr>
</tbody>
</table>

**PRODUCT CODE**

- Each model is available in the following versions:
  - ENGLISH
  - METRIC
  - With English pitch lead screw; dial graduations in inches.
  - With Metric pitch lead screw; dial graduations in millimeters.

For increased versatility, use COLCHESTER ACCESSORIES

- Finish cut hydraulic profiling attachment
- High speed threading attachment
- Telescopic taper turning attachment
- Dual Reading Dials (Metric-English for top and cross slides)
- TOOLPOSTS: Four-way automatic indexing or Quick-change
- REAR TOOLPOSTS: Standard or Quick-change
- CHUCKS: Additional 315mm three jaw Geared scroll or 400mm four jaw independent, direct on spindle mounting chuck (Note: only use high speed chucks with these lathes)
- Stationary
- Steady
- Travelling Steady
- BEDSTOPS
- Single, Five-position Longitudinal or Micrometer type
- GMT Rotating centre
- Face plates: 20 in dia. or 27 in dia. (for gap bed lathes)
- Chip guard
- Low volt lighting unit
- Power operated Traverse Unit
- Digital Readout Unit

These are a selection of the many accessories available which are detailed in full in the price list.

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

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**Colchester**
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