Features

Bed Ways
The heavy duty compact one piece bed is extremely rigid and multired to eliminate torsional twisting and vibrations. All "V" ways and flat ways of the bed are induction hardened to Rockwell 40 and above (Rockwell 43 RC and above) and precision ground. Bed ways are made of special gray iron alloy, and are naturally aged at the Nerdini Foundry to relieve internal stress and tension. Autoclaimed bed ways permit true alignment and parallelism throughout the life of the lathe.

Electrical Equipment
The electrical equipment used is made of the highest quality components. Klockner Moeller and Telemechanique electrical components after high and low voltage protection with a 110V magnetic starter. Motors are supplied as our standard, both 7 ½ HP (S), 85 HP (E) versions. The electrical panel conforms to IEC STANDARD, designed for easy access and is fully protected from dust and contamination. Four "V" belt drive is used for positive and smooth power transmission.

Headstock
Rugged headstock design provides maximum efficiency in all forms of turning and finishing. The short and rigidly supported spindle is made from Chromium, Nickel, Molybdenum alloy steel, case hardened and fully ground. The spindle turns on preloaded high precision "TIMKEN" taper roller bearings. All spindle assemblies are high speed dynamically balanced on a "SCHENCK" balancing machine.

The D1-6 Camlock spindle nose has a large hole through the spindle of 2 3/8 (52mm). The headstock provides 9 or 18 spindle speeds, which are in geometric progression and are easily selected.

Carriage
Automatic longitudinal and transversal disengaged increases productivity. Tenth control lever for maximum safety. The Nerdini carriage is guided by a long ways bearing surface providing smooth feeds and travel with maximum accuracy and minimal wear. Wide carriage is properly fitted to saddle base adding strength and reducing torsional twisting. Cross feed adjustment eliminates backlash, permitting greatest possible accuracy. Fully adjustable tapered gibbs on cross slide and top slide provide for wear compensation, and long life. All parts are automatically lubricated. Single lever provides rapid engagement of leadscrew, cross feed and longitudinal movement. "T" slot on cross slide permits quick mounting of rear tool post and other accessories.

Universal Gear Box
The universal gear box allows immediate selection of both inch and metric threads without changing end gears. The totally enclosed gear box provides the user with one of the most comprehensive range of metric and inch feeds and threads.

All gears are hardened and are made of special alloy steel. The spline shaft is case hardened and turns on antifriction bearings.

Automatic pump and oil bath lubrication system creates cascade flow of oil. Adjustable safety overload feature disengages feed in case of excess stress and misuse of lathe.
## Specifications

<table>
<thead>
<tr>
<th>CAPACITY</th>
<th>ND-1500 S/E</th>
<th>ND-1700 S/E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>inches</td>
<td>mm</td>
</tr>
<tr>
<td>Height of centers</td>
<td>9  1/2&quot;</td>
<td>245</td>
</tr>
<tr>
<td>Distance between centers</td>
<td>16  1/2&quot;</td>
<td>416</td>
</tr>
<tr>
<td>Swing over bed</td>
<td>16&quot;</td>
<td>406</td>
</tr>
<tr>
<td>Swing over wings of saddle</td>
<td>10  9/16&quot;</td>
<td>274</td>
</tr>
<tr>
<td>Swing over cross slide</td>
<td>8&quot;</td>
<td>203</td>
</tr>
<tr>
<td>(**) Swing in gap</td>
<td>12&quot;</td>
<td>305</td>
</tr>
<tr>
<td>(**) Swing in space</td>
<td>9  1/8&quot;</td>
<td>232</td>
</tr>
<tr>
<td>Cross slide travel</td>
<td>9  1/2&quot;</td>
<td>245</td>
</tr>
<tr>
<td>Top slide travel</td>
<td>5  1/4&quot;</td>
<td>134</td>
</tr>
<tr>
<td>Tool section</td>
<td>5  1/8&quot;</td>
<td>128</td>
</tr>
</tbody>
</table>

### BED

- **Width**: 10  9/16" (274 mm)
- **Height**: 10  7/8" (274 mm)

### HEADSTOCK

- **Spindle nose (CAMLOCK)**: D1-6" (152 mm)
- **Spindle bore**: 2" (50 mm)
- **Spindle internal taper**: 1:20
- **Taper in reduction sleeve (MT)**: 4 (9.53 mm)
- **Spindle speeds (rpm)**: 9, 18, 52
- **Speeds range**: 50 to 2000 (25 to 2000)
- **Version "S" (RPM)**: 9, 18, 52
- **Version "E" (RPM)**: 9, 18, 52

### TAILSTOCK

- **Quill diameter**: 3/8" (22 mm)
- **Quill travel**: 3/8" (22 mm)
- **Quill internal taper (MT)**: 4 (9.53 mm)
- **Lateral adjustment**: 1/2" (12 mm)

### GEAR BOX

- **Number of threads**: 216
- **Metric threads (mm)**: (54) 0.40 - 18.472
- **Inch threads (TFI)**: (42) 2.3/4 - 2.3/4
- **Module threads (Mod.)**: (54) 2.3/5 - 2.3/5
- **Diametrical pitch threads (DP)**: (54) 8.3 - 8.3
- **Pitch of leadscrew (TFI)**: 4 (10.16 mm)

### FEEDS RANGE

- **Number of feeds**: 264
- **Cross feeds (132)**: 0.0001 - 0.048 in/rev. (0.0026 - 1.239 mm/rev.)
- **Longitudinal feeds (132)**: 0.00021 - 0.0976 in/rev. (0.0053 - 2.479 mm/rev.)

### MOTORS

- **Main motor (specify voltage)-Version "S" (HP)**: 2 1/2 (1.9)
- **Version "E" (HP)**: 2 1/2 (1.9)

### COOLANT UNIT MOTOR (HP)

- **Optional**

## Dimensions (Packing) and Approximate Weight

### Model ND-1500 S/E

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DISTANCE BETWEEN CENTERS</th>
<th>DIMENSIONS</th>
<th>VOLUME</th>
<th>GROSS WEIGHT</th>
<th>NET WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCHES</td>
<td>INCHES</td>
<td>M</td>
<td>INCHES</td>
<td>M</td>
<td>INCHES</td>
</tr>
<tr>
<td>20</td>
<td>500</td>
<td>79</td>
<td>2.00</td>
<td>40</td>
<td>1.00</td>
</tr>
<tr>
<td>40</td>
<td>1000</td>
<td>98</td>
<td>2.50</td>
<td>40</td>
<td>1.00</td>
</tr>
<tr>
<td>60</td>
<td>1500</td>
<td>118</td>
<td>3.00</td>
<td>40</td>
<td>1.00</td>
</tr>
<tr>
<td>86</td>
<td>2200</td>
<td>146</td>
<td>3.70</td>
<td>40</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### Model ND-1700 S/E

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DISTANCE BETWEEN CENTERS</th>
<th>DIMENSIONS</th>
<th>VOLUME</th>
<th>GROSS WEIGHT</th>
<th>NET WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCHES</td>
<td>INCHES</td>
<td>M</td>
<td>INCHES</td>
<td>M</td>
<td>INCHES</td>
</tr>
<tr>
<td>20</td>
<td>500</td>
<td>79</td>
<td>2.00</td>
<td>40</td>
<td>1.00</td>
</tr>
<tr>
<td>40</td>
<td>1000</td>
<td>98</td>
<td>2.50</td>
<td>40</td>
<td>1.00</td>
</tr>
<tr>
<td>60</td>
<td>1500</td>
<td>118</td>
<td>3.00</td>
<td>40</td>
<td>1.00</td>
</tr>
<tr>
<td>86</td>
<td>2200</td>
<td>146</td>
<td>3.70</td>
<td>40</td>
<td>1.00</td>
</tr>
</tbody>
</table>

## Characteristics of Standard Equipment

- One piece induction hardened and ground bed
- Five positions turret stop
- Headstock in front of faceplate
- Change gear, electromagnetic brake
- Splash guard
- Tool slide with "T" slot
- Chip pan
- Change gears
- Dual reading inch/metric dial
- Graduated quill (inch/metric)
- Coolant system
- Two MT4 hardened centers
- Color green
- RAL 6001
- Spindle reduction sleeve 120 x MT1
- Thread cutting indicator
- Manual lubrication pump
- Left side machine head
- Service manuals
- Set of leveling screws
- Adjustable feed screw and hand wheel
- Complete electrical equipment for 220V, 60 hz, 110V, 50 hz control panel and parts manual.

## Characteristics of Optional Equipment

- Lighting system
- Four independent jaw chuck (12 1/4") (310 mm)
- ND-1500S/E and 14 1/4" (360 mm)
- ND-1700S/E
- Faceplate 14" (350 mm)
- Spindle 4" (100 mm)
- Driving plate 7 1/2" (190 mm)
- ND-1500S/E and 7 1/2" (190 mm)
- ND-1700S/E
- Backplate for universal chuck 7 1/2" (190 mm)
- 1 1/4" (28.5 mm) ND-1700S/E Rear tool post
- Steady rest with bearings interchangeable bronze tips 7 1/16" (180 mm) to 3 15/16" (100 mm) with bearings interchangeable bronze tips 7 1/16" (180 mm) to 3 15/16" (100 mm)
- Collet chuck
- Quick change tool holder
- Air operated chuck Ø 6 1/4" (160 mm)
- Taper turning attachment (10 x 8° (200 mm)
- Hydraulic tracer unit
- Chuck guard
- Micrometer stop
- Bed width gap
- Other equipment on request.

Technical specifications subject to change without notice.

[www.umanauls.com](http://www.umanauls.com)