### MICROPROCESSOR

#### Operator Console Display

<table>
<thead>
<tr>
<th>Models</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cut data continuously</td>
<td>Yes</td>
</tr>
<tr>
<td>Alphanumeric part program names (125 characters max)</td>
<td>Yes</td>
</tr>
<tr>
<td>Present and next position of all axes</td>
<td>Yes</td>
</tr>
<tr>
<td>Feedrate setting</td>
<td>Yes</td>
</tr>
<tr>
<td>Block number being executed</td>
<td>Yes</td>
</tr>
<tr>
<td>Mode - (inch/mm and oxy/plasma)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

#### Machine Internal Program:

- **Windows Operating system**: Yes
- **Menu driven program**: Yes
- **Programs cuts online and offline**: Yes
- **Stores and recall part programs**: Yes
- **Print cut sheet (with graphics)**: Yes
- **Animated 3D graphics**: Yes
- **Displays a directory of programs**: Yes
- **Program storage capacity**: 100,000+

### MICROPROCESSOR

#### Models

<table>
<thead>
<tr>
<th>Models</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Preprogrammed shapes and holes with color graphics with work point or baseline offsets</td>
</tr>
<tr>
<td>All</td>
<td>Preprogrammed shapes and holes with color graphics with work point or baseline offsets</td>
</tr>
<tr>
<td>All</td>
<td>Axial, centerline, workpoint and baseline offsets</td>
</tr>
<tr>
<td>All</td>
<td>Reduced operator intervention, calculates optimal feedrate</td>
</tr>
<tr>
<td>All</td>
<td>Quick, easy review and change of cut data</td>
</tr>
<tr>
<td>All</td>
<td>Verify correct profile and dimensions before cutting</td>
</tr>
<tr>
<td>MPM-4 &amp; MPM-5</td>
<td>Maximize weld joint strength &amp; minimize weld material</td>
</tr>
</tbody>
</table>

#### Operator Can:

- **Enter and edit data**: Yes
- **Override feedrate**: Yes
- **Load/Recall Programs**: Yes
- **JOG axes**: Yes
- **Set axes "OFFSETs"**: Yes
- **Return axes to HOME position**: Yes
- **Control functions**: Yes
- **Singlestep**: Yes
- **Retrace**: Yes
- **Dry run**: Yes
- **Return to program start**: Yes
- **Abort**: Yes
- **Feed Hold**: Yes
- **Control conveyor functions**: Yes
- **Switch automatic torch operations ON/OFF**: Yes
- **Switch out-of-round sensors ON/OFF**: Yes
- **Moisture, outside (air, gas)**: Yes
- **Plasma "Autoign"**: Yes

### Computerized Pipe Cutting Machine Specifications

- **Sided step**: Yes
- **Automatic wall thickness compensation**: Yes
- **Pipe intersection data on display**: Yes
- **2D and 3D Display graphics with shape & dimensions**: Yes
- **Constant included weld bevel**: MPM-4 & MPM-5
- **Operator Can**: Ease of operation, programming
- **Distance between cuts**: All
- **Axial offsets between cuts**: All
- **Automatic wall thickness compensation**: All
- **Pipe intersection data on display**: All
- **2D and 3D Display graphics with shape & dimensions**: All
- **Constant included weld bevel**: MPM-4 & MPM-5

### Specification Summary

- **Kerf width**: Yes
- **Variable lead-in/lead-out**: Yes
- **Weld prep angle (default value)**: MPM-4 & MPM-5
- **Inch/metric dimensions**: Yes
- **Oxy-fuel/plasma**: Yes

### Additional Information

- **A Lincoln Electric Company.**
- **Specifications subject to change without notice.**
- **©2009 Vernon Tool Company  Printed in U.S.A.**
- **Catalog MPM-09.02**

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**Vernon Tool Company**

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Web: www.vermontool.com • E.mail: www.sales@vermontool.com
### General Assembly & Capabilities:

<table>
<thead>
<tr>
<th>Model</th>
<th>Pipe diameter</th>
<th>Standard machine bed length</th>
<th>Min. - Max. pipe length/machine extension</th>
<th>Max. weight per foot</th>
<th>Max. total load</th>
<th>Cutting methods</th>
<th>Max. Cutting speed</th>
<th>Automatic ignition - std</th>
<th>Movable control console</th>
<th>Rotation drives</th>
<th>Horsepower - Rotation</th>
<th>Lifting method</th>
<th>Conveyor power feed</th>
<th>Max. Cutting speed</th>
<th>Power required</th>
<th>Voltage</th>
<th>Humidity (noncondensing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 0224</td>
<td>2&quot; - 24&quot; (50 - 600 mm)</td>
<td>20' x 4' (6,1 x 1,2 m)</td>
<td>3 - 20' (1 - 6,1 m)</td>
<td>2500 lb (1135 kg)</td>
<td>5000 lb (2269 kg)</td>
<td>oxy-fuel/plasma</td>
<td>200 ipm (3 m/min)</td>
<td>Yes</td>
<td>Yes</td>
<td>Anti-backlash worm</td>
<td>2 HP</td>
<td>Hydraulic</td>
<td>Var Speed, reversible</td>
<td>0 - 55 fps (0 - 17 m/min)</td>
<td>10kVA</td>
<td>220/460VAC 60Hz 3 Ph</td>
<td>50 - 80%</td>
</tr>
<tr>
<td>Model 0348</td>
<td>3&quot; - 48&quot; (75 - 1200 mm)</td>
<td>20' x 4' (6,1 x 1,2 m)</td>
<td>5 - 50' (1,5 - 15 m)</td>
<td>5000 lb (2269 kg)</td>
<td>15,000 lb (6724 kg)</td>
<td>oxy-fuel/plasma</td>
<td>200 ipm (3 m/min)</td>
<td>Yes</td>
<td>Yes</td>
<td>Anti-backlash worm</td>
<td>3 HP</td>
<td>Hydraulic</td>
<td>Var Speed, reversible</td>
<td>0 - 32 fps (0 - 10 m/min)</td>
<td>10kVA</td>
<td>220/460VAC 60Hz 3 Ph</td>
<td>50 - 80%</td>
</tr>
<tr>
<td>Model 0454</td>
<td>4&quot; - 54&quot; (100 - 1370 mm)</td>
<td>20' x 4' (6,1 x 1,2 m)</td>
<td>5 - 50' (1,5 - 15 m)</td>
<td>5000 lb (2269 kg)</td>
<td>50,000 lb (22,300 kg)</td>
<td>oxy-fuel/plasma</td>
<td>200 ipm (3 m/min)</td>
<td>Yes</td>
<td>Yes</td>
<td>Anti-backlash worm</td>
<td>3 HP</td>
<td>Hydraulic</td>
<td>Var Speed, reversible</td>
<td>0 - 32 fps (0 - 10 m/min)</td>
<td>20kVA</td>
<td>220/460VAC 60Hz 3 Ph</td>
<td>50 - 80%</td>
</tr>
<tr>
<td>Model 2084</td>
<td>20&quot; - 84&quot; (500 - 2100 mm)</td>
<td>20' x 4' (6,1 x 1,2 m)</td>
<td>5 - 50' (1,5 - 15 m)</td>
<td>5000 lb (2269 kg)</td>
<td>90,000 lb (41,000 kg)</td>
<td>oxy-fuel/plasma</td>
<td>200 ipm (3 m/min)</td>
<td>Yes</td>
<td>Yes</td>
<td>Anti-backlash worm</td>
<td>5 HP</td>
<td>Hydraulic</td>
<td>Var Speed, reversible</td>
<td>0 - 32 fps (0 - 10 m/min)</td>
<td>30kVA</td>
<td>220/460VAC 60Hz 3 Ph</td>
<td>50 - 80%</td>
</tr>
</tbody>
</table>

### Benefits:

- Wide range of diameters on each machine
- Fully support and rotate entire length of pipe
- Most pipe received in 20’ or 40’ lengths
- Adaptable to all cutting systems
- Adequate for plasma
- Computer controlled ignition sequence
- Minimum backlash, precision and durability
- Better visibility, avoid slag and sparks

### CPU/Motion Controller:

<table>
<thead>
<tr>
<th>Model</th>
<th>Display</th>
<th>Keyboard with mouse</th>
<th>Processor (Minimum)</th>
<th>Motion control</th>
<th>Motors</th>
<th>Machine accuracy</th>
<th>Machine repeatability</th>
<th>Control accuracy</th>
<th>Machine repeatability</th>
<th>Data I/O options</th>
<th>No. of axes standard</th>
<th>Max. throat velocity</th>
<th>Max. prep angle oxy/plasma</th>
<th>Max. prep angle oxy/plasma</th>
<th>Interaction angle range</th>
<th>5-axis bevel head rotation</th>
<th>Vert., out-of-round compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPM-2</td>
<td>Color VGA Touchscreen</td>
<td>115-key alphanumeric</td>
<td>Windows compatible</td>
<td>UMAC 4-axis</td>
<td>Tachless DC Servo</td>
<td>0.030&quot; (&lt; 0.0011&quot; (0.03 mm))</td>
<td>&lt; 0.0010&quot; (&lt; 0.0010&quot; (0.03 mm))</td>
<td>&lt; 0.0010&quot; (&lt; 0.0010&quot; (0.03 mm))</td>
<td>Ethernet, USB</td>
<td>7</td>
<td>7.5 (8 m)</td>
<td>Manually set ±7055°</td>
<td>N/A</td>
<td>Rack &amp; pinion</td>
<td>None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPM-4</td>
<td>Color VGA Touchscreen</td>
<td>115-key alphanumeric</td>
<td>Windows compatible</td>
<td>UMAC 8-axis</td>
<td>Tachless DC Servo</td>
<td>0.030&quot; (&lt; 0.0011&quot; (0.03 mm))</td>
<td>&lt; 0.0010&quot; (&lt; 0.0010&quot; (0.03 mm))</td>
<td>&lt; 0.0010&quot; (&lt; 0.0010&quot; (0.03 mm))</td>
<td>Ethernet, USB</td>
<td>4</td>
<td>4</td>
<td>2.0 &quot; (50 mm)</td>
<td>±70/55°</td>
<td>Rack &amp; pinion</td>
<td>(2) Analog proximity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MPM-5</td>
<td>Color VGA Touchscreen</td>
<td>115-key alphanumeric</td>
<td>Windows compatible</td>
<td>UMAC 8-axis</td>
<td>Tachless DC Servo</td>
<td>0.030&quot; (&lt; 0.0011&quot; (0.03 mm))</td>
<td>&lt; 0.0010&quot; (&lt; 0.0010&quot; (0.03 mm))</td>
<td>&lt; 0.0010&quot; (&lt; 0.0010&quot; (0.03 mm))</td>
<td>Ethernet, USB</td>
<td>5</td>
<td>5</td>
<td>2.0 &quot; (50 mm)</td>
<td>±70/55°</td>
<td>Rack &amp; pinion</td>
<td>(2) Analog proximity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other Specifications:

- Other voltages available upon request
- May vary with options selected
- Computer controlled ignition sequence
- Improved programmability & versatility

### Control Accuracy:

- < 0.0010" (< 0.0010" (0.03 mm))
- < 0.0010" (< 0.0010" (0.03 mm))
- < 0.0010" (< 0.0010" (0.03 mm))

### Control Repeatability:

- < 0.0010" (< 0.0010" (0.03 mm))
- < 0.0010" (< 0.0010" (0.03 mm))
- < 0.0010" (< 0.0010" (0.03 mm))

### Cutting Methods:

- Oxy-fuel/plasma

### Maximum Weights per Foot:

- 250 lb/ft (375 kg/m)
- 1000 lb/ft (1500 kg/m)
- 1500 lb/ft (2215 kg/m)
- 2000 lb/ft (3000 kg/m)