**PRECISION MATTHEWS**

**BENCH MILLS**

A word of caution!

Many factories in Asia Pacific countries, especially China, produce similar looking milling machines, with similar seeming specs. The key word here is similar — the same they are not. Most of the mills described here have features unique to Precision Matthews, sometimes "under the hood", sometimes clear spec differences. Compare before you choose!

Aside from an unusually long, rock-solid warranty, the following key factors apply to all Precision Matthews bench mills:

- **True-inch 10 TPI lead screws** with 0.001” dial graduations (not metric approximations like the others)
- **Thrust bearings** on the lead screws (not sleeves)
- **Industry standard R8 spindles**
- **Quill DRO** (all models except PM-833T)
- **High precision DRO options, 2- or 3-axis**
- **Table power feed option** (X-axis) available on all models

One more thing to bear in mind — Precision Matthews is a company that’s “By Machinists For Machinists”. We go out of our way to provide meaningful tech support.

**NOTE:** DRO and/or power feed options may limit travel in X, Y or Z axes

<table>
<thead>
<tr>
<th>PM-25MV-BD</th>
<th>PM-727M</th>
<th>PM-727V</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power:</strong> 110Vac, 60Hz, 1Φ</td>
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<td><strong>Power:</strong> 110Vac, 60Hz, 1Φ</td>
</tr>
<tr>
<td>Drive: brushless dc, with belt drive</td>
<td>Drive: 6-speed gearbox</td>
<td>Motor speed control</td>
</tr>
<tr>
<td><strong>Continuously variable spindle speed in 2 ranges</strong></td>
<td><strong>Choice of 6 spindle speeds</strong></td>
<td><strong>Brushless dc motor</strong></td>
</tr>
<tr>
<td>50 to 1250 &amp; 100 to 2250</td>
<td>115, 220, 320, 600, 1120, 1700</td>
<td><strong>Speed range selectors</strong></td>
</tr>
<tr>
<td><strong>Table size</strong></td>
<td><strong>Table size</strong></td>
<td><strong>Similar to PM-727M, except for variable speed motor (brushless dc), and very wide range of spindle speeds, 40 to 3000 rpm.</strong></td>
</tr>
<tr>
<td>27-1/2 x 7-1/8”</td>
<td>27-1/2 x 7-1/8”</td>
<td><strong>Table size</strong></td>
</tr>
<tr>
<td><strong>T-slots (3)</strong></td>
<td><strong>T-slots (3)</strong></td>
<td>27-1/2 x 7-1/8”</td>
</tr>
<tr>
<td>12 mm</td>
<td>12 mm</td>
<td><strong>Stands option</strong></td>
</tr>
<tr>
<td><strong>Weight, stand not incl., net</strong></td>
<td><strong>Weight, stand not incl., net</strong></td>
<td><strong>Stands option</strong></td>
</tr>
<tr>
<td>275 lb</td>
<td>475 lb</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>Height on stand, maximum/normal working</strong></td>
<td><strong>Height on stand, maximum/normal working</strong></td>
<td>1 year</td>
</tr>
<tr>
<td>70 in./60 in.</td>
<td>76 in./71 in.</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>Stand height</strong></td>
<td><strong>Stand height</strong></td>
<td>1 year</td>
</tr>
<tr>
<td>30 in.</td>
<td>27-5/8 in.</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>Width, handwheel to handwheel, table full left to full right</strong></td>
<td><strong>Width, handwheel to handwheel, table full left to full right</strong></td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>58-1/4 in.</td>
<td>55 in.</td>
<td>1 year</td>
</tr>
<tr>
<td><strong>Overall depth, front to back</strong></td>
<td><strong>Overall depth, front to back</strong></td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>23-1/2 in.</td>
<td>30 in.</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>X-axis travel</strong></td>
<td><strong>X-axis travel</strong></td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>19 in.</td>
<td>15 in.</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>Y-axis travel</strong></td>
<td><strong>Y-axis travel</strong></td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>7 in.</td>
<td>8-1/2 in.</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>Z-axis headstock travel</strong></td>
<td><strong>Z-axis headstock travel</strong></td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>13 in.</td>
<td>16 in.</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>Quill travel</strong></td>
<td><strong>Quill travel</strong></td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>2 in.</td>
<td>3 in.</td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td><strong>Spindle nose to table, max.</strong></td>
<td><strong>Spindle nose to table, max.</strong></td>
<td><strong>Warranty</strong></td>
</tr>
<tr>
<td>18-1/4 in.</td>
<td>18-1/4 in.</td>
<td><strong>Warranty</strong></td>
</tr>
</tbody>
</table>
## PM-932M

- **Power:** 220Vac, 60Hz, 1Φ
- **Drive:** brushless dc, with belt
- **Continuously variable** spindle speed in 2 ranges: 50 to 1500 & 1400 to 3000
- **Table size:** 33 x 8-1/4”
- **T-slots (3):** 14 mm
- **Weight, stand not incl., net:** 530 lb
- **Height on stand, maximum/normal working:** 76 in./67 in.
- **Stand height:** 28 in.
- **Width, handwheel to handwheel, table full left to full right:** 68 in.
- **Overall depth, front to back:** 31 in.
- **X-axis travel:** 22-3/8 in.
- **Y-axis travel:** 8-3/4 in.
- **Z-axis headstock travel:** 17 in.
- **Quill travel:** 5 in.
- **Spindle nose to table, max.:** 18 in.

## PM-940M

- **Power:** 220Vac, 60Hz, 1Φ
- **Drive:** 6-speed gearbox
- **Choice of 6 spindle speeds:** 90, 210, 345, 670, 1180, 1970
- **Table size:** 40 x 9-1/2”
- **T-slots (3):** 14 mm
- **Weight, stand included, net:** 1350 lb
- **Height on stand, maximum/normal working:** 85 in./82 in.
- **Stand height:** 24 in.
- **Width, handwheel to handwheel, table full left to full right:** 78 in.
- **Overall depth, front to back:** 31 in.
- **X-axis travel:** 23 in.
- **Y-axis travel:** 11 in.
- **Z-axis headstock travel:** 20 in.
- **Quill travel:** 5 in.
- **Spindle nose to table, max.:** 22 in.

## PM-952M

- **Power:** 220Vac, 60Hz, 1Φ
- **Drive:** 6-speed gearbox
- **Choice of 6 spindle speeds:** 90, 210, 345, 670, 1180, 1970
- **Table size:** 31-1/2 x 9-1/2”
- **T-slots (3):** 14 mm
- **Weight, stand included, net:** 850 lb
- **Height on stand, maximum/normal working:** 81 in./76 in.
- **Stand height:** 24 in.
- **Width, handwheel to handwheel, table full left to full right:** 67 in.
- **Overall depth, front to back:** 31 in.
- **X-axis travel:** 22-3/8 in.
- **Y-axis travel:** 8-3/4 in.
- **Z-axis headstock travel:** 17 in.
- **Quill travel:** 5 in.
- **Spindle nose to table, max.:** 18 in.

## PM-932TPM

- **Power:** 220Vac, 60Hz, 1Φ
- **Drive:** brushless dc, with belt
- **Continuously variable** spindle speed in 2 ranges: 50 to 1500 & 1400 to 3000
- **Table size:** 33 x 8-1/4”
- **T-slots (3):** 14 mm
- **Weight, stand not incl., net:** 530 lb
- **Height on stand, maximum/normal working:** 76 in./67 in.
- **Stand height:** 28 in.
- **Width, handwheel to handwheel, table full left to full right:** 68 in.
- **Overall depth, front to back:** 31 in.
- **X-axis travel:** 22-3/8 in.
- **Y-axis travel:** 8-3/4 in.
- **Z-axis headstock travel:** 17 in.
- **Quill travel:** 5 in.
- **Spindle nose to table, max.:** 18 in.

## PM-833T

- **Power:** 220Vac, 60Hz, 1Φ
- **Drive:** 6-speed gearbox
- **Choice of 6 spindle speeds:** 90, 210, 345, 670, 1180, 1970
- **Table size:** 33 x 8-1/4”
- **T-slots (3):** 5/8 in.
- **Weight, stand not incl., net:** 950 lb
- **Height on stand, maximum/normal working:** 88 in./75 in.
- **Stand height:** 30 in.
- **Width, handwheel to handwheel, table full left to full right:** 69 in.
- **Overall depth, front to back:** 30 in.
- **X-axis travel:** 23 in.
- **Y-axis travel:** 11 in.
- **Z-axis headstock travel:** 17-1/2 in.
- **Quill travel:** 5 in.
- **Spindle nose to table, max.:** 20-1/2 in.