NASA - MOORE 450 CP CNC JIG GRINDER

NASA - Quality, Reliability, Affordability, Service and Integrity

NASA Machine Tools is a world leader in the remanufacture, and CNC integration of all types of Moore jig grinders (No. 3, G-18, G-32, G-48, Series 1000 and all existing CNC type machines).

Each machine is completely remanufactured to ensure the original mechanical accuracy, and after the CNC integration is installed, NASA offers guaranteed tolerances of any new machine available.

1. FANUC 0i-MD CNC control system with continuous path contouring capability
2. “Z” axis scale feedback with multiple reciprocation zones (optional)
3. “C” axis and planetary motor with in-line absolute rotary encoder feedback
4. Ultra precision ballscrews submersed in oil, and precision roller bearing way system
5. FANUC, AC digital servo drive system mounted in a stand alone cabinet
6. FANUC servo drive motors
7. High speed reciprocation (190 cycles/min)
8. Programmable U axis outfeed
9. Hand scraping for geometry correction, and complete mechanical rebuild

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Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Table working surface</td>
<td>11” x 24” (280mm x 610mm)</td>
</tr>
<tr>
<td>X axis travel</td>
<td>18” (450mm)</td>
</tr>
<tr>
<td>Y axis travel</td>
<td>11” (280mm)</td>
</tr>
<tr>
<td>Table top to wheel collet</td>
<td>2”-18” (50mm to 450mm)</td>
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<tr>
<td>Spindle housing vertical travel</td>
<td>12.625” (320mm)</td>
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<tr>
<td>Vertical slide travel (quill)</td>
<td>3.625” (92mm)</td>
</tr>
<tr>
<td>Grinding hole diameter range</td>
<td>0.016”-5” (.4mm to 127mm) (larger holes can be ground with optional extension plates)</td>
</tr>
<tr>
<td>X &amp; Y axis rapid traverse</td>
<td>60”/min. (1,500 mm/min.)</td>
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<tr>
<td>Spindle speeds (planetary)</td>
<td>2 to 300 RPM</td>
</tr>
<tr>
<td>Reciprocation rate (1” stroke)</td>
<td>2 to 190 cycles/min.</td>
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<tr>
<td>Positioning accuracy</td>
<td>0.000080” (.002mm)</td>
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<tr>
<td>Contouring accuracy</td>
<td>0.000120” (.003mm)</td>
</tr>
<tr>
<td>Squareness of X axis to Y axis</td>
<td>0.000040” (.001mm)</td>
</tr>
<tr>
<td>Squareness of spindle housing to X-Y</td>
<td>0.000090” (.0023mm)</td>
</tr>
<tr>
<td>Alignment of spindle housing to column ways</td>
<td>0.000090” (.0023mm)</td>
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</tbody>
</table>

Specifications subject to change.

Features

- FANUC 0i-MD CNC control system
- Four (4) programmable reciprocation zones with “Z” axis scale feedback (OPTIONAL)
- Four (4) axes controlled (X,Y,C & U)
- Automatic “C” axis normalcy
- Ultra precision ballscrews submersed in an oil bath
- Precision roller bearing way system
- Accordion way covers for dust protection
- Automatic lubrication system
- Manual pulse generator (handwheel)
- Programmable main spindle speeds
- Programmable air grinding spindle on/off
- Programmable chop grinding on/off
- Programmable 110 V outlets on/off
- Complete mechanical rebuild to original specifications
- Minimum programmable resolution .000010” (.00025mm)
- Three (3) coats of high gloss epoxy paint
- Laser certification of machine accuracies
- One year warranty/guarantee
- Programmable 5th axis rotary table (OPTIONAL)