SPM Series Single-Pass Bore Finishing

High Precision, Tight Tolerance, Low Per Part Cost
For high volume applications, Engis single-pass bore finishing systems are the unsurpassed solution for forward thinking manufacturers to improve roundness, concentricity and finish.

Utilizing the single-pass process, extremely tight tolerances can be held reliably and consistently in your production environment, at a lower overall cost per finished piece. Additionally, Engis diamond plated bore finishing tools ensure high quality by achieving – in standard and semi-blind bores – geometries to within one half of a micron (0.000020") bringing precise accuracy to your finished part.

Single-Pass Bore Finishing Benefits include:
- Reduced labor costs through automated systems
- Lower cost per hole through long tool life
- Predictable, consistent results
- Improved bore quality
- Fewer rejects
- Less frequent part inspection
- Shorter cycle times
- Higher production rates
- SPC values >2.0 Cpk

The SPM series is a standard line of machines designed to meet the needs of job shops for small to medium size parts. Available in 4, 6, 8 and 10 spindle models, these systems are primarily for parts up to 51mm (2") diameter.

Machine Also Includes:
- Class 7 duplex spindle bearings
- 27mm (1-1/16") diameter ASA spindles
- Pre-lubed for life linear slides and ball screw (32mm (1-1/4") diameter)
- Pneumatic counter balance on head
- Electro-mechanical, cam-style precision indexer

SPM Series

Standard features:
- Servo fed column design
- 457mm (18") stroke
- Mitsubishi full CNC Controls capable of supporting optional advanced features including; robotic parts handling, vision inspection, dynamic gauging, multiple networking protocols, automatic tool sizing and tool size verification
### SPECIFICATIONS:

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Machine Weight:</td>
<td>1,700 kg (3,750 lbs)</td>
</tr>
<tr>
<td>Required Air Pressure:</td>
<td>6.2 Bar (90 PSI)</td>
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<td></td>
<td>.14m³/min (5 ft³/min)</td>
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<tr>
<td>Operating Voltage:</td>
<td>380/460V 50/60Hz 3Phase</td>
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<tr>
<td>Dial Plate Diameter:</td>
<td>508mm (20”)</td>
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<tr>
<td>Z-axis Travel:</td>
<td>457mm (18”) standard extended stroke available</td>
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<tr>
<td>Maximum Rapid Speed:</td>
<td>8,890 mm/min (350 IPM)</td>
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<tr>
<td>Spindle Motor:</td>
<td>3.7 kW (5 HP) and 5.6 kW (7.5 HP) standard versions</td>
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<tr>
<td>Spindle Speed:</td>
<td>100-1500 RPM</td>
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<tr>
<td>Spindle:</td>
<td>27mm (1-1/16”) diameter ASA</td>
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<td>Spindle Nose to Table Max:</td>
<td>600mm (23.6”) standard extended length available</td>
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<tr>
<td>Available # of Tools:</td>
<td>4, 6, 8 and 10</td>
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<tr>
<td>Controller:</td>
<td>Mitsubishi (standard) Other types available</td>
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<tr>
<td>Programming:</td>
<td>G-Code</td>
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<td>Able to process 2 parts/cycle</td>
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### OPTIONS:

- 132 liter (35 gallon) coolant system with single cartridge filtration
- 208 liter (55 gallon) coolant system with double cartridge filtration
- Rotary manifold for pneumatically activated clamping
- Upgraded spindle motor package
- Spindle crash protection
- Solid tool holder with or without crash protection
- Floating tool holder with or without crash protection
- Floating tool holder with angle modification with or without crash protection
- Quick-change tools adapters
- Full perimeter guarding
- Extended column
- Automation, gauging, brushing & guarding packages available
- Standard and custom fixturing packages