External cylindrical grinder
HG 2
When the EMAG Grinding Division introduced the HG 2 series to its horizontal grinding machine platform it took into account all the demands that are made on modern cylindrical grinders. In fact, with the HG 2 External Cylindrical Grinder EMAG presents a new, highly productive and flexible machine concept for the grinding of small, medium and large batches of shaft-type components.
The HG 2 machines workpieces of up to 600 mm in length. The high static and dynamic rigidity of its thermostable cast iron machine base guarantees excellent manufacturing quality. The dimensions of the machining area offer easy access to the machine and accommodate extensive axis movements. Linear motion guideway systems allow for the smallest infeeds and excellent continuity of movement. These stick-slip-free and well-dampened infeeds lead to exceptional contour integrity and outstanding surface finishes.

The HG 2 is equipped with precision ball screws, which - in combination with the absolute measuring systems in X- and Z-axis (linear glass scales) - make for high precision. The HG 2 is not subject to any vibrations from machine enclosure or automation equipment that could have a negative influence on the machining results. The optional equipment specification includes an integrated loader with recirculating pallet storage conveyor, a coolant purification plant and a grinding mist extractor.

The HG 2 and its advantages:

- A high-powered wheel drive shortens machining times
- A contact and crash recognition and wheel balancing system monitors the grinding process
- An in-process gauging control checks O/Ds and the longitudinal position on shoulders
- Operator and setter menus simplify handling
- High-precision, sturdy linear roller guiderails in all axes guarantee the longevity of the machine
- Absolute measuring systems (linear glass scales) in all axes ensures the highest machining accuracy
- An NC tailstock with large stroke makes for easy resetting
- Short idle times lead to high productivity levels
- An operator-friendly workpiece error correction system automatically rectifies dimensional errors
- Large doors give optimal access, thus reducing the distance between operator and workpiece
## Technical Data.

### Capacity

<table>
<thead>
<tr>
<th>Dimension</th>
<th>HG 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workpiece diameter max.</td>
<td>mm 200 in 79</td>
</tr>
<tr>
<td>Max. length of automatically loaded workpieces</td>
<td>mm 400 in 15.7</td>
</tr>
<tr>
<td>Max. length of manually loaded workpieces</td>
<td>mm 600 in 23.6</td>
</tr>
<tr>
<td>Max. workpiece weight</td>
<td>kg 40 lb 88</td>
</tr>
</tbody>
</table>

### Grinding wheels

<table>
<thead>
<tr>
<th>Dimension</th>
<th>HG 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corundum wheels, max. dia.</td>
<td>mm 610 in 24.0</td>
</tr>
<tr>
<td>Max. wheel width</td>
<td>mm 150 in 5.9</td>
</tr>
<tr>
<td>Power rating of wheel drive</td>
<td>kW 15 hp 20</td>
</tr>
</tbody>
</table>

### Feeds and speeds

<table>
<thead>
<tr>
<th>Dimension</th>
<th>HG 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-axis travel</td>
<td>mm 360 in 14.2</td>
</tr>
<tr>
<td>Z-axis travel</td>
<td>mm 1,000 in 39.4</td>
</tr>
<tr>
<td>X- and Z-axis speed</td>
<td>m/min 30 / 30 ipm 1,181 / 1,181</td>
</tr>
</tbody>
</table>

### Work head with belt-driven spindle

<table>
<thead>
<tr>
<th>Dimension</th>
<th>HG 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque</td>
<td>Nm 30 ft-lb 22</td>
</tr>
<tr>
<td>Speed range</td>
<td>rpm 1 – 1,000</td>
</tr>
<tr>
<td>Receptor</td>
<td>MT 4</td>
</tr>
</tbody>
</table>

### Dimensions and weights

<table>
<thead>
<tr>
<th>Dimension</th>
<th>HG 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length a</td>
<td>mm 2,990 in 117.7</td>
</tr>
<tr>
<td>Length b</td>
<td>mm 3,810 in 150.0</td>
</tr>
<tr>
<td>Width c</td>
<td>mm 2,400 in 94.5</td>
</tr>
<tr>
<td>Width d</td>
<td>mm 3,190 in 125.6</td>
</tr>
<tr>
<td>Height e</td>
<td>mm 2,490 in 96.0</td>
</tr>
<tr>
<td>Center height f</td>
<td>mm 1,175 in 46.3</td>
</tr>
<tr>
<td>Weight</td>
<td>approx. kg 9,000 approx. lb 19,841</td>
</tr>
</tbody>
</table>
Floor plan HG 2

Subject to technical changes
At home in the world.

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