These cylindrical grinding machines have been designed to fulfill the requirements of a wide range of applications from 1500 mm up to 5000 mm in length. The most demanding industries can benefit from tailor-made configurations for turbine shafts, large transmissions, axles for rail units and landing gear components, among other examples.

Complex processes with in-process measuring, special dressing systems and custom enhancements have been developed accordingly. The structure of independent axes is ideal for a single or double wheelhead, to optimise versatility with sequential grinding operations.
VERSATILITY

Machine structure
- Made of stress-relieved pearlitic cast iron.
- Optimised with finite element calculation.
- Stability and rigidity required for optimum grinding accuracy.
- Coolant channels especially designed to guarantee maximum thermal stability.

X and Z axes
- Axes architecture design through the centre of gravity for eliminating vibration.
- Moving slides with ground and hand-scrapped V and flat slideways, including antifriction coating to avoid thermal expansion and stick slip effects.
- Driven by a ballscrew with direct coupling to CNC servomotor.
- High resolution linear scale to control the positioning.

Swivelling B-axis
- Automatic wide range swivelling.
- Torque motor driven for zero backlash and lower maintenance.
- High resolution rotary scale to control perfect angular positioning.
- Continuous positioning with mechanical locking and pneumatic unlocking system.
- Repeatability on 650 mm radius ±1 µm.

Workheads & tailstock
- Modular designs for best application adaptability.
- Selected materials and designs for stable temperature performance.
- Compressed air lifting systems for comfortable set ups.

Grinding spindles
- First-class quality spindles customised for application.
- High-precision bearings with lifetime constant grease lubrication.
- Selected materials for stable temperature performance, driven by built-in motor.
- Cutting speeds automatically controlled with frequency drives.
- Independent temperature control and efficient liquid-cooling system.

CORE TECHNOLOGY

HG RANGE

<table>
<thead>
<tr>
<th></th>
<th>HG-62</th>
<th>HG-72</th>
<th>HG-92</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. distance between centres</td>
<td>2000 mm</td>
<td>4000 mm</td>
<td>5000 mm</td>
</tr>
<tr>
<td>Max. diameter to be ground</td>
<td>500 mm</td>
<td>840 mm</td>
<td>1040 mm</td>
</tr>
<tr>
<td>Max. weight between centres</td>
<td>500 kg</td>
<td>1500 kg</td>
<td>5000 kg</td>
</tr>
<tr>
<td>Max. grinding wheel diameter</td>
<td>760 mm</td>
<td>915 mm</td>
<td>1060 mm</td>
</tr>
<tr>
<td>Max. wheelhead power</td>
<td>22 kW</td>
<td>45 kW</td>
<td>45 kW</td>
</tr>
<tr>
<td>Max. wheel peripheral speed</td>
<td>60/100 m/s</td>
<td>60/100 m/s</td>
<td>60/100 m/s</td>
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