Safe and simple handling
High measuring accuracy
Extensive protective devices and safety guards for:
• Operating staff
• Machine
• Environment
Modular design for various applications
Integration of correction units allow for measuring and correcting in one machine

Balancing Machines for Cardan Shafts
Series HGW

Range of application

The horizontal, hard-bearing balancing machines of series HGW are especially designed for the balancing of cardan shafts in overhaul and repair shops and for small volume production.

The modular design provides for easy exchange of standard components, thus allowing adaptation to other balancing tasks such as balancing of electric armatures, crankshafts etc.
Balancing Machines for Cardan Shafts HGW

Special features

- Wide weight range
- Careful dimensioning of all machine components ensures long service life and high availability and operational safety
- Special spindle bearings cover wide speed range and high centrifugal forces
- Sliding spindle for a comfortable loading and unloading of the cardan shafts
- The dynamometer principle for permanent calibration allows large initial unbalances and guarantees high balancing accuracy
- Sophisticated safety concept

Extension

- Adapter flanges make the use of a variety of cardan shaft connections possible.
- Welding and drilling can be integrated for unbalance correction after measuring.

Universal application

- Due to the modular design of the machines of series HGW, replacement of the spindle bearing with roller carriages is quite simple, therefore, rotors with journals of their own, such as electric armatures, crankshafts, etc. can also be balanced.
The integrated Schenck measuring unit makes balancing a self-explanatory task:

- Softkeys and a sophisticated window technique guide the operator simply and easily through the balancing procedure
- Clear display of information on the large colour monitor
- The balancing procedure may start after the input of only a few rotor data. No calibration runs are necessary within the specified range
- Quick change-over for different rotor types
- The angular protractor makes a quick and accurate indexing of the correction position possible
- The software “Compensation index balancing” automatically subtracts the unbalance components of spindles and flanges from the overall unbalance. Only the unbalance of the rotor to be balanced is displayed

Series HGW is characterised by a comprehensive safety concept for man and machine:

- A bearing force monitoring system automatically switches off the machine drive in case of inadmissibly high vibrations at the spindle bearing
- Stable safety catching blocks are designed to prevent damage to man and machine in case of failure (e.g. cardan shaft fracture)
- Protective guard of safety class C 600 as per ISO 7475 as protection against projected parts, such as e.g. correction weights.

With the measuring unit CAB 840, balancing of multi-part cardan shafts in up to four planes becomes routine.

Protective devices and safety guards
### Important data at a glance

<table>
<thead>
<tr>
<th></th>
<th>HGW 20 B</th>
<th>HGW 30 B</th>
<th>HGW 40 B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spindle bearing (for cardan shafts)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cardan shaft weight max.</td>
<td>180 kg</td>
<td>450 kg</td>
<td>1000 kg</td>
</tr>
<tr>
<td>Balancing speed max.</td>
<td>100 - 6000 min⁻¹</td>
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#### Typical field of application

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<thead>
<tr>
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<tbody>
<tr>
<td>Low weight / high speed</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Mean weight / mean speed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High weight / low speed</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Schenck measuring unit</td>
<td>CAB 700 / CAB 802 / CAB 840</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UMAR* gmm/kg</td>
<td>0,5 (no better than 25 gmm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Centre line height</td>
<td>800 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated power</td>
<td>4 kW</td>
<td>4 kW</td>
<td>7,5 kW</td>
</tr>
<tr>
<td>Type of drive</td>
<td>Belt drive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply connection</td>
<td>400V x 3 phase x 50/60 Hz</td>
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#### Roller bearings (optional for industrial rotors with journals)

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<thead>
<tr>
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<tbody>
<tr>
<td>Rotor weight max.</td>
<td>100 kg</td>
<td>700 kg</td>
<td>3000 kg</td>
</tr>
<tr>
<td>UMAR* gmm/kg</td>
<td>0,1 (no better than 5 gmm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotor diameter max.</td>
<td>1600 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bearing journal diameter</td>
<td>9-140 mm</td>
<td>10-160 mm</td>
<td>15-240 mm</td>
</tr>
</tbody>
</table>

* Minimum achievable residual unbalance per balancing plane

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**Series HK**

Our series HK perfectly fits your “Heavy Duty” applications (high weight and speed ranges).

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**SCHENCK**

**Balancing and Diagnostic Systems**

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