Balancing Machine for Axle Assemblies
DVW

Applications
- Measuring and correcting unbalance in axle assemblies in one plane, with consideration of the "in the vehicle" mounting conditions.
- Unbalance correction by radial drilling in polar or component format.
- Alternatively other correction procedures such as milling, welding, riveting, etc. can be provided.
- Loading manually, by crane, by gantry loader or by robots - as required.
- Application in series or single piece production mainly in the automotive O.E.M. and Tier 1 supplier industries.
- Possible integration into a fully automatic production line.

Advantages
- Simple and safe operation.
- Free access for loading of machine.
- Dual measuring station; i.e. loading and unloading in overlapping cycles (cycle time optimization).
- Compact and clean design.
- Simple switchover from dual to single measuring station.
- Monitoring of loading clearance by light curtain; no opening of loading doors required.

Description
- Soft-bearing vertical balancing machine for measuring and correction of unbalance in one plane (static unbalance).
- The drive unit is attached to a horizontal slide gantry, which enables an alternating and, thus, overlapping loading of the machine.
- The workpiece is clamped by an expanding sleeve mandrel or a diaphragm chuck. Other available clamping systems are multi-blade mandrel or segmented mandrel holders.
- Unbalance correction is achieved by drilling in the same station as measuring.
- The number of drilling cycles depends on the initial unbalance, on the unbalance removal rate per hole (drill diameter and drilling depth) and on the allowable residual unbalance (unbalance tolerance).
1 Measuring station, 2 Control panel, 3 Drilling unit, 4 Maintenance door, 5 Chip extractor

Technical data

<table>
<thead>
<tr>
<th>DVW12B2</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Rotor:</strong></td>
<td></td>
</tr>
<tr>
<td>Weight, max.</td>
<td>kg</td>
</tr>
<tr>
<td>Width x depth x height</td>
<td>mm</td>
</tr>
<tr>
<td><strong>Machine:</strong></td>
<td></td>
</tr>
<tr>
<td>Width x depth x height</td>
<td>mm</td>
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<tr>
<td>Balancing speed, approx.</td>
<td>rpm</td>
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<tr>
<td>Measuring accuracy</td>
<td>gmm</td>
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<tr>
<td>Drill diameter</td>
<td>mm</td>
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</tbody>
</table>

1) Other dimensions on request

Options

- Hole scanning for identification of forbidden zones, pin scanning and/or preset unbalances
- Marking device to identify the heavy and/or light position
- Adjustable drill speed
- Simulation unbalance on the drive unit to simulate the "in the vehicle" situation
- Automatic loading
- Test rotor with calibration weights
- Report printer

Scope of supply

- Rigid machine frame
- Measuring system
- Moveable drive
- Two drilling units
- Chip extractor
- Safety enclosure: class B as per ISO 7475
- Pneumatics
- Machine control
- Measuring unit with keyboard and monitor
- Balancing software with various balancing algorithms