Balancing Machine for Differential Housings
DVK11-F

Applications
- Balancing of car and truck differential housings in high volume production in the automotive (O.E.M.) and Tier 1 supplier industries.
- Unbalance correction, depending on specification by:
  - drilling on the flange,
  - milling on the flange and/or milling on the cage for two plane compensation.
- Available configurations:
  - Single machine with manual loading (audit),
  - Combination with correction station and automatic loading.
- Types of loading:
  - Manual,
  - Automated with gantry loader,
  - Automated with robot,
  - Interface with Pick-And-Place or other type rotary transport.

Description
- Vertical hard-bearing balancing machine for measuring and correcting unbalance in one or two planes.
- The workpiece is centered and clamped in the axial center bore using an expanding sleeve mandrel.
- Unbalance correction with additional correction unit.
- Optional swarf removal by suction unit and workpiece specific exhaust hood.

Advantages
- Fully automatic processing.
- Easy operation.
- Compact and rugged design.
- High precision.
- Permanent calibration.

General view
Measuring station
Milling unit

All information is subject to change without notice
1 Measuring station, 2 Clamping station, 3 Milling unit, 4 Swarf extractor, 5 Hydraulics

Technical data

<table>
<thead>
<tr>
<th></th>
<th>DVK11-FL2</th>
<th>DVK11-FL3</th>
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<tbody>
<tr>
<td><strong>Rotor</strong></td>
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<tr>
<td>Weight, max.</td>
<td>kg</td>
<td>15</td>
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<tr>
<td>Total length, max.</td>
<td>mm</td>
<td>230</td>
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<tr>
<td>Outer dia. on flange, max.</td>
<td>mm</td>
<td>145</td>
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| **Machine**    |           |           |
| Width x depth x height | mm      | 2200 x 2900 x 4000 | 4900 x 2600 x 3200 |
| Balancing speed, approx. | rpm     | 600       | 600       |
| Measuring accuracy | gmm     | < 30      | < 30      |
| Cycle time (at 100 % audit), approx. | sec.     | 60        | 34        |
| Stations       |           | 2         | 3         |

1) Depending on concentricity of axial center bore on both bearing journals

Options

- Loading gantry (L)
- Loading robot (R)
- Rotary lifting transport (H)
- 2 axis milling unit for 2 plane correction
- Marker unit
- Interface with host computer

Scope of supply

- Vertical measuring station with expanding sleeve mandrel
- Milling unit
- Clamping and indexing station
- Swarf exhaust unit
- Measuring unit with keyboard and monitor
- Machine control
- Safety enclosure: class B as per ISO 7475
- Hydraulic unit