

Balancing Machine for Axle Assemblies

DVW



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.

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.

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).

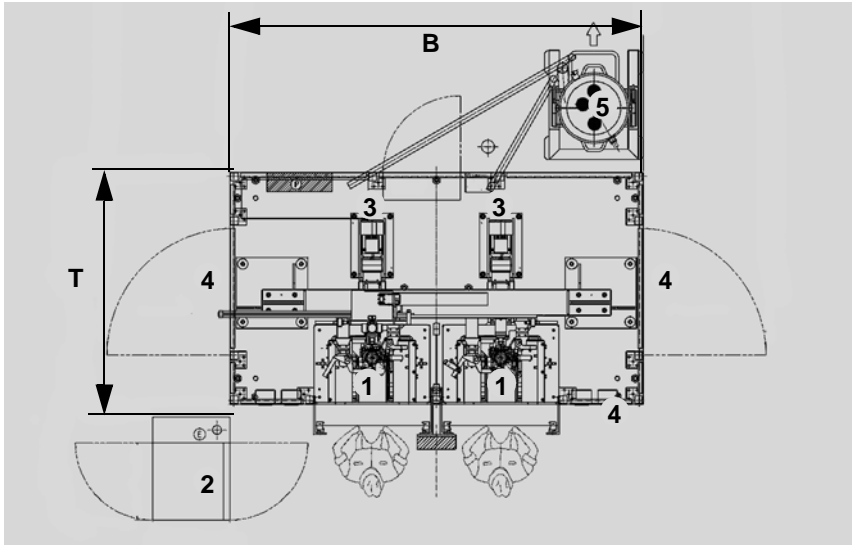


Measuring station



Drilling unit

All information is subject to change without notice



1 Measuring station, 2 Control panel, 3 Drilling unit, 4 Maintenance door, 5 Chip extractor

Drive unit

Technical data

DVW12B2

Rotor:		
Weight, max.	kg	30
Width x depth x height ¹⁾	mm	350 x 300 x 600
Machine:		
Width x depth x height	mm	3200 x 1800 x 2400
Balancing speed, approx.	rpm	800
Measuring accuracy	gmm	< 10
Drill diameter	mm	7

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