

Series SBAL Balancing Machines for Axle Drives with Fully Automatic Unbalance Correction



- Fully automatic measuring run
- Force-measuring bearing pedestals
- Fully automatic unbalance correction by drilling into the input flange
- CAB 850 measuring unit
- Simulation of environmental conditions by so-called dummy-balancing

Design

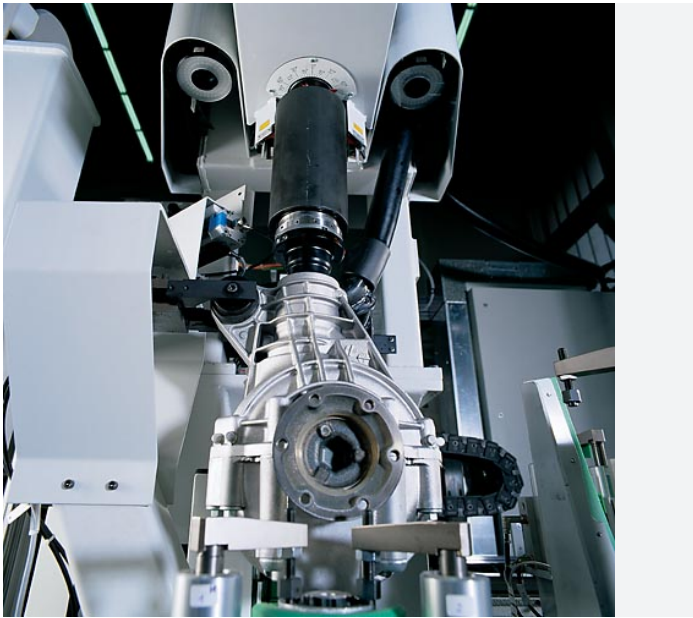
Machine design optimally adapted to the task. Arrangement of machine assemblies based on ergonomic principles. Available as 1- or 2-station machine. Welded machine base of special design. Force-measuring bearing pedestals with auxiliary balancing frame, adapted specifically to the axle drive in hand. Pneumatically operated gear clamping mechanisms restrain the axle drive during the balancing process. Automatically operating drive unit with active tooling and automatic correction unit. High-performance chip extractor for removing drilling chips in the machine working area.

Range of application

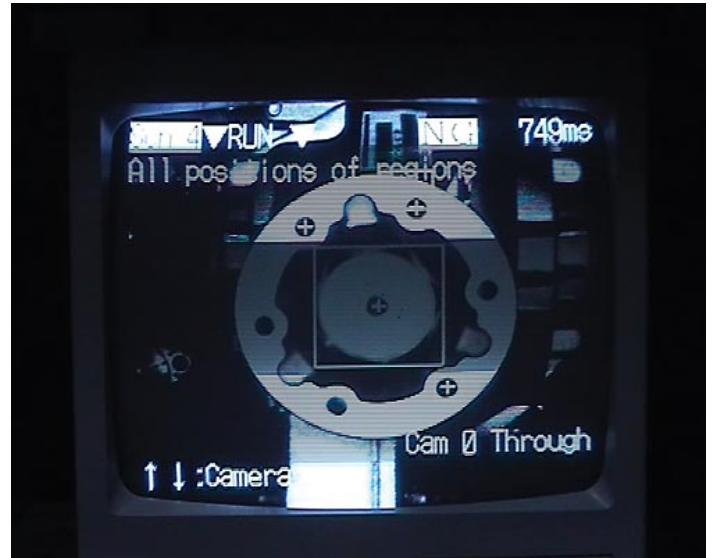
- Measurement and correction of the unbalance of front and rear axle drives
- Application of the machine in axle drive production
- Low-speed measurement of unbalance at approx. 1500 min⁻¹
- Unbalance correction by drilling into the axle drive input flanges (welding available as option)

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Balancing Machines for Axle Drives with Fully Automatic Unbalance Correction



Precision drive by servo motor with spring loaded universal-joint shaft, backlash-free, with dummy mass and active tooling for backlash free unclamping and unloading of the input flange.



Optical pattern recognition of the input flange for high-accuracy unbalance correction and detection of forbidden zones.

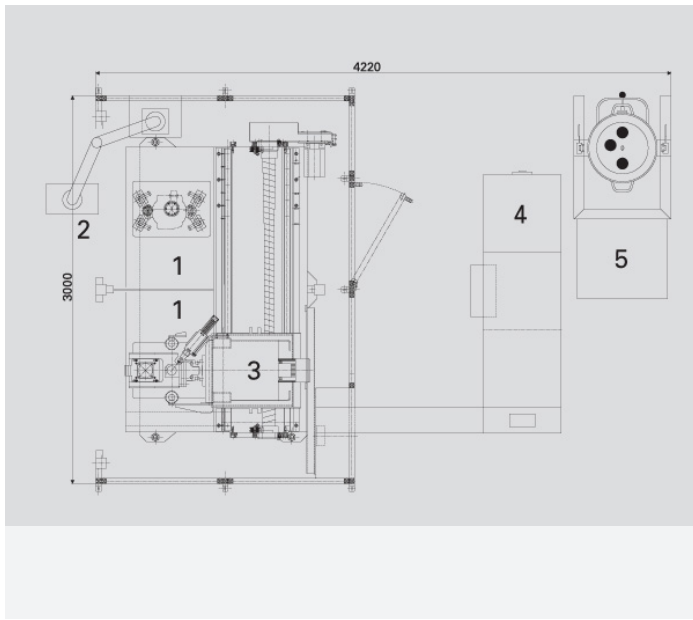


Horizontal single-station machine



Ergonomic PC-based measuring unit with TFT touch screen display. Optimum calculation of unbalance correction masses to be removed by drilling, with direct display. Digital measuring process with high frequency selectivity. Compensation circuit for electrical compensation of initial unbalance or adapter unbalance. Further special features: Large display, operator prompting, diagnostic programs, fault display, statistics program and printer connection. Measuring unit prepared for remote diagnosis through interface.

Series SBAL Balancing Machines for Axle Drives with Fully Automatic Unbalance Correction



2-station machine

- 1 Working area
- 2 Measuring device
- 3 Drive unit
- 4 Switch cabinets
- 5 Swarf extractor

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Balancing Machines for Axle Drives with Fully Automatic Unbalance Correction

Technical data at a glance		Baureihe SBAL
Measuring unit		CAB 850
Function sequence		Semiautomatic
Unbalance correction		Fully automatically by drilling unit
Machine		
Power clamping unit		Automatic, pneumatically actuated
Width A	[mm]	ca. 3000
Depth B	[mm]	ca. 4500
Spindle speed	[min ⁻¹]	ca. 1500
Load carrying capacity	[kg]	50
Measuring uncertainty	[gmm]	ca. 20
Cycle time	[s]	ca. 45 - 90
Production rate	[St./h]	ca. 30 -40
Air pressure	[bar]	min. 6,0
Power consumption	[kVA]	17
Horizontal safety door		•
Marking device		•
	Order No.	R1020100.01

2) According to DIN 1319, 95% probability, with master rotor and without re-clamping error

3) Depending on initial unbalance and operating staff