

Balancing Machine for Crankshafts

KHK21-BH2



Applications

- Balancing of passenger car crankshafts, symmetric and asymmetric design
- Automatic loading with loading gantry or robot
- Unbalance compensation by drilling with 1-spindle drilling unit

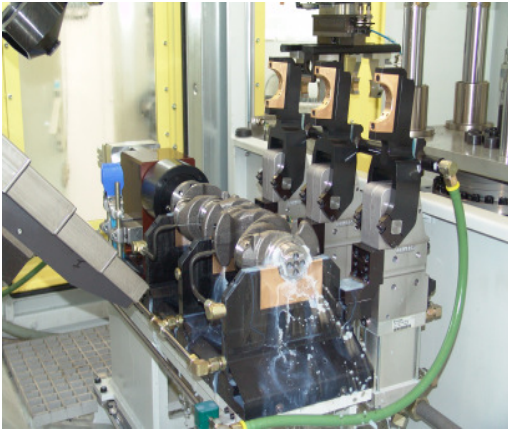
Description

- Two-station balancing machine with entire housing and two-part frontdoor
- Measuring system with NC-drive and maintenance-free sensors. Measuring frame lockable in measuring position. Drive rollers resp. bearing sleeves lineary adjustable. Pre-storage area lineary adjustable
- Friction drive, pin or hook drive, weights for compensation of V-style crankshafts can be mounted on discs (with pin or hook drive)
- Unbalance compensation by sloped NC-drill spindle with NC-infeed slide and NC-cross slide for positioning to the correction planes
- Chip removal by suction unit
- Round transfer for internal work piece transport
- Control cabinet with all electric components
- Operation via 19" touch screen (manual operations WIN CC and operation of measuring electronic (Windows®))

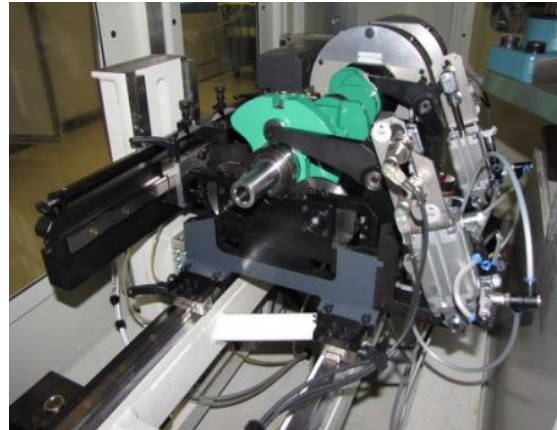
Advantages

- Easy and quick changeover
- Separate measuring and correction station
- Maintenance-free and wearless vibration sensors
- Cut indication ensures exact drilling depths
- Monitoring for drill breakage and drill wearing
- Minimal Quantity Lubrication
- Chip removal by suction mask at the tool
- High-quality German drill spindle
- Tool management for 99 tools
- Integrated statistic software.
- Automatic MFU

All information without obligation, subject to change without notice!



Correction station



Measuring station with pre-storage area

Technical data

		KHK21-BH2	
		Friction drive	Pin or hook drive
Rotor:			
Weight	kg	6 - 40	6 - 50
Overall length	mm	350 - 750	300 - 750
Main bearing diameter	mm	30 - 80	30 - 80
Journal distance, min.	mm	-	85
Fly circle radius crankpin, max.		120	160
Compensation		Drilling with MQL	
Compensation radius	mm	60 - 120	60 - 160
Machine:			
Measuring planes		2	2
Measuring system		distance measuring with maintenance free sensors	
Cycle time	sec.	cycle time chart for each shaft will be supplied	
Unbalance reduction ratio	%	95	95
Measuring drive		friction rollers / drive rollers with pin drive or hook drive	
Machine data:			
Width x depth x height	mm	2600 x 3000 x 2200	2600 x 3000 x 2200
Balancing speed	min ⁻¹	200 - 650	200 - 650
Measurement uncertainty ¹⁾ at 95 % confidence intervall	gmm/kg	0.7	1

¹⁾ Depending on workpiece

Options

- Loading gantry with gripper
- Automatic tool change (up to 4 positions)
- Detection of flange center for correction of drilling position
- Master rotor with calibration weights
- Operation by OP12 and Transline 2000

Scope of supply

- Measuring station with friction drive, pin or hook drive (NC-drive)
- Correction station with pin or hook drive (NC-drive)
- Round transfer with NC-axis
- Drilling unit on NC-cross slide
- Machine housing with front door and maintenance doors
- Welded machine base
- Suction unit
- MC 10 measuring computer
- Control cabinet
- Mounting elements