



BEST BALANCE 1000

Portable vibration measuring device for checking the vibrations caused by the tool, tool holder and spindle assembly with local correction of unbalance. The BEST BALANCE 1000 is a carry-on device which may be used to balance any rotating body – such as grinding wheels, pulleys, fans, rotors, etc – in the workshop.

Characteristics

- ▶ Measures vibrations and unbalance
- ▶ Allows the choice of different unbalance correction methods
- ▶ User-friendly menus with step by step driven unbalance correction procedure
- ▶ Connectable to the bench unit BEST BALANCE 2000 Plus to transform it in a manual tool balancing machine



Benefits

- ▶ Helps to maintain vibrations within control limits achieving:
 - Faster cutting speeds
 - Longer tool life
 - Better surface finishing
 - Longer life of spindle and spindle bearings
 - Noise reduction
 - Breakage prevention
- ▶ Easy to use



The need

High Speed Cutting Machining Centres allow increased productivity coupled with improved surface quality of production.

To ensure this to last in the time, avoiding the cost due to machine downtime, reworking, rejects, early substitution of tool and machine components, the vibrations due to the unbalancing of the tool-tool holder-spindle assembly shall be systematically measured according to a control plan. Depending on the situation, the unbalance will either be compensated in site, thus timely bringing it within the optimum control limits, or eliminated by a forthcoming more radical, planned maintenance activity.

Solution

To satisfy this need of unbalance measurement and correction, Balance Systems proposes the BEST BALANCE 1000 device. BEST BALANCE 1000 is a rugged, easy to use and very versatile, portable shop floor vibration measuring and correction device. Conceived for tools and machine tools it can be fully exploited to measure and correct the unbalance of other rotating components present on the shop floor.

Characteristics

BEST BALANCE 1000 consists of:

- Anti-scratch case with handle, shoulder strap and double lock
- Control panel with waterproof snap keyboard and graphic display
- Rack including the power supply, the measurement card, the serial RS232 interface for the connection of optional peripherals
- A vibrations transducer and a photoelectric sensor for speed detection, with magnetic fitting
- Reflecting paper and power supply cable

The case can be connected to the BEST BALANCE 2000 Plus bench thus obtaining a manual tool room balancing machine. The operator can choose the unit of measurement of the unbalance and the communication language, from a total of five, to be guided during the measurement and correction procedure.

The equipment visualises in digital and graphic format:

- The amount of the unbalance
- The phase of the unbalance
- The spindle speed
- The angular position of the corrections

The operator can easily define all the working parameters and in particular the balancing method:

- Movement of already inserted masses
- Movement of already present rings
- Addition of masses



Technical Data	Options
Supply voltage	110-220 V
Supply frequency	50-60 Hz
Max. power	50 W
Measurable rotation speed	max. 65000 rpm
Speed resolution	1 rpm.
Vibration measurement units	mm/s, inch/s, μ m, mils
Vibration measurement resolution	0,01 mm/s, inch/s, μ m, 0,001 mils
Position measurement resolution	0,1°
Balancing planes	1
Operative temperature	0 ... 55°C
Operative relative umidity	max. 98%
Protection level	IP50
Graphic display	Backlighted LCD 100x 80 mm 320x240 pixel
Printer management	opt. (40 rows Epson EOS/POS compatible on RS232)
System back-up on RS232-PC	optional
Selectable languages	Italian, English, German, French, Spanish
Max. dimensions (WxHxD)	380x310x160 mm
Weight with accessories	8,7 Kg

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