



Balance Systems

SB 50 - RB 50

Manual balancing machine for rotors and armatures of electric motors

The applications:

The electric motor industry needs to manufacture rotors and armatures with acceptable levels of unbalance.

This is achieved through dynamically balancing the rotating body to design specifications.

The result:

- > Long bearing life
- > Smooth operation



The solution

Balance Systems has developed the SB50 - RB50 line of general purpose balancing machines capable of accurately quantifying the amount and position of unbalance in two planes

The machine SB50-RB50 is:

- > **High precision** - utilizes Hard or soft bearings depending on the application
- > **Easy-to-use** - Operator interface to intuitively guide the balance correction process
- > **Safe** - Equipped with safety guard
- > **Economic** - Provided high volume with an excellent relationship between quality/price



Features

The SB50 - RB50 is a high precision balancing machine for rotating parts with mass up to 50 kg.

Quick and easy change over to accommodate a broad range of rotors and armatures. Up to 200 specific part models may be stored to support the mechanical changeover.

The machine is composed from:

- Floor model balance base with belt drive system, bearing supports, and safety guard.
- Electric cabinet housing all electrical components and PC electronics.

There are more economical versions which are not PC based.

- SB50-RB50/M2 Analog display of unbalance amount and unbalance position by stroboscopic lamp.

- SB50-RB50/DG6 Analog display of unbalance amount and digital display of the unbalance angular position.

The PC based SB50/RB50 balancing machine offers many options, increased capabilities when compared to typical general purpose balancers.

Complete interface to plant computer network for data reporting is possible. Modem with telephone (Analog or ISDN) service for off site troubleshooting is offered along with a complete SPC software package. There are 2 options to identify the location of unbalance. The first is by automatic positioning via servo motor. The second utilizes a visual laser dot. The software may be customized for specific types of correction like drilling, milling, and single size mass addition. For example the operator could be presented with the correct number of holes and respective depth for a given drill diameter. Or a specific number of standard size washers to be added to achieve balance correction. We have the balancing machine to care of all your balancing needs.

Characteristic SB50-RB50	Value
Rotating mass	1-50kg.
Max outside diameter	450 mm
Drive System	Belt
Rotor diameter at belt drive	20 mm min. - 250 mm max.
Distance between bearing supports	130 mm min. - 800 mm max.
Balance sensors	Hard or soft bearings according to the requirements
Shaft diameter at the bearing supports	8 mm min. - 80 mm max.
RPM	Programmable
Balance type	Static or 2 plane dynamic
Repeatability, ISO	0,05 gmm/kg
Supported correction methods	Standard: addition/removal of mass Optional: drilling/milling
Machine dimensions	1200 x 980 x 1100h mm with closed safety guard 1900 x 980 x 1100h mm with open safety guard
Machine Weight	200kg
Machine Color	Blue 5018
Cabinet Color	Beige 7032
Power supply	220V single phase 50/60Hz
Absorbed power	1Kw
Operating Noise Level	< 70dB
Operating interface	The operator interface is Pentium PC based running with Windows NT. Included supporting hardware items are CD and floppy disk driver, keyboard, RAM, Hard drive, Parallel and serial ports, and RJ45 Network interface card.
Display	640 x 480 color
Program of diagnostic and maintenance	
SPC	Optional - Harvest dates and statistic: Cart X, R, Cpk of initial and final values of unbalance on the planes
Modem	Optional
Certified Master	Optional

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