Model SB-1000
Dynamic Balancing System

Dual functionality at an economical price.

The SB-1000 is an easy to use, compact dynamic balancing system that provides full functionality, including both an automatic and a manual balancing mode, at an entry-level price.

This single machine control provides exceptional accuracy, capable of balancing to a tolerance as low as 0.02 microns peak-to-peak displacement over a spindle range of 300 to 30,000 RPM. With its digital design and intuitive icon-driven user interface, the SB-1000 is simple to install on existing equipment and can be easily integrated through the grinding machine CNC/PLC hardwire interface.

The SB-1000’s Manual Balance mode not only provides the most economical manual balancing solutions, it also provides real-time display of vibration and RPM levels. Operators can set alert and alarm thresholds through the CNC/PLC interface.

Operators can also utilize the Automatic Balance mode with the addition of a balance head and cable for rapid balance cycles controlled through the CNC/PLC interface, eliminating the need for operator interaction.

BENEFITS:
- The functionality of two products in one
- Increases throughput by saving setup time
- Improves part quality by automatically balancing to as low as 0.02 microns
- Change balance mode with the push of a button
- All-digital design increases operating life and reliability
- Compact and easy to install and operate
- Economical price
- Longer life for grinding wheels, dressing wheels and spindle bearings
- Works with all SBS installations and accessories
- Easy CNC/PLC interface; USB 2.0 communication capability for firmware upgrades
- Backed by world-class and worldwide customer service
## SPECIFICATIONS

### Physical
- **Display:**
  - OLED Graphical Display
- **User Interface:**
  - Universal icon-driven (language independent)
- **Dimensions:**
  - W x H x D: 210 mm x 112 mm x 33 mm
- **SB-5500 Compatible:**
  - Operates with existing balancers/cables, sensors, CNC/PCL hardwire interface

### Performance
- **RPM Reporting:**
  - 300 to 30,000 RPM
- **Wide Vibration Range:**
  - 50 μg to 1,25 g
- **Vibration Display Resolution:**
  - Four digit display with up to 2 decimal points in microns, with display resolution to 0.01 μm
- **Vibration Display Repeatability:**
  - 6,000 RPM ±1 % @ 5,0 μm
  - 300–30,000 RPM ±2 % @ 50:1 signal to noise
- **Vibration Display Accuracy:**
  - 6,000 RPM ±2 % @ 5,0 μm
  - 300–30,000 RPM ±4 % @ 50:1 signal to noise
- **Auto-Balance Resolution:**
  - 0.02 microns displacement at 6,000 RPM
- **Vibration Filter:**
  - Custom digital filter has bandwidth +/- 3 % of measurement RPM

### Power Input Requirements
- **Power Supply:**
  - 24 VDC with terminal block connection, and M5 ground stud
- **Eingangsspannung:**
  - + 22 VDC to + 26 VDC at 3,5 A max.
  - Surge protected
  - Negative protected (reverse protected from a non-grounded supply)
  - Fused
- **Communications Interfaces:**
  - USB 2.0 (firmware upgrades only), CNC/PLC hardwire interface (opto-isolated outputs)

### Safety and Environmental
- **CE certified**
- **RoHS compliant**

### Environmental and Installation Conditions:
- **Pollution degree 2**
- **Intended for indoor use only**
- **Installation category I**
- **IP54, NEMA 12**
- **Environmental temperature range: 5 °C to +55 °C**
- **Humidity: 0 to 85 % relative humidity (non-condensing) throughout temperature range**

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For more information on SBS products, see AccretechSBS.com to find your local SBS distributor or Representative, or call Accretech SBS, Inc.

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