

# B Series - B5

## 230 kg (500 lb) Capacity

### Horizontal Balancing Machine



#### HORIZONTAL AXIS, GENERAL PURPOSE, SOFT BEARING, BALANCING MACHINE

#### DESCRIPTION:

The B5 is a dynamic, horizontal axis, soft bearing Balancing Machine. This is a precision balancing machine that can be used with any IRD Balancing instrument. It is suited for balancing small rotors such as motor armatures, fans, turbines, etc. The machine is constructed from heavy gauge steel weldments and can be mounted to existing shop floors without the need for a special foundation. Two work supports with rollers are used to support the rotor journals. The right work support has a built in height adjustment to accommodate rotors with unequal journal diameters. One work support pedestal can be moved on the machine bed to accommodate different length rotors. The drive system consists of a DC variable speed motor with a belt drive. The motor controller is mounted inside the control console and is equipped with regenerative braking for quick stops. The B5 is supplied completely wired and ready to connect to existing input power. Optional instrument packages, V-Block rotor work supports, drive power systems and negative load hold downs are available.

#### GENERAL SPECIFICATIONS:

- Weight Capacity: 230 kg (500 lb)
- Max. Rotor Dia.: 900 mm (36 inches)
- Maximum Sensitivity: 1.5 g mm (0.06 g in)
- Standard Bed Length: 1400 mm (55 inches)



- Journal Diameter Range: 13 - 203 mm (0.5 - 8 inches)
- Journal-to-Journal Separation: 102 - 1200 mm (4 - 47.2 inches)
- Drive Type: Underslung Belt Drive with manual belt tensioning
- Drive Motor (std): DC 0.75 kW (1 HP) Variable speed motor with encoder
- Balancing Speed Range: 250 to 6000 RPM
- Number of Balance Planes: 1 or 2
- Encoder output port: Used by IRD Balancing instruments for determining rotor angular position
- Standard Accessories: (3) Flat drive belts, (2) roller work supports, suspension motion locks, end thrust assemblies, motor control console.
- General configuration (without rotor):
  - Dim: 3556 x 940 x 1168 mm (l x w x h) (140 x 37 x 46 in) (l x w x h)
  - Weight: 563 kg (1240 lb)
- General configuration (continued)
  - Power (std): 230VAC, 50 or 60 Hz
  - Temperature: Operating 0 to +40° C

#### OPTIONAL FEATURES:

- Rotor Safety Hold Downs
- V-Block Rotor Work Supports
- Negative Load Hold Downs
- Large Diameter Rollers
- 236 Digital Balancing Instrument
- 246 Portable Balancing Instrument
- 290 Touch Screen Balancing Computer
- Larger drive motor
- External transformers for other voltages

**STANDARD CONFIGURATIONS:**

<b>B5 Basic Machine</b>	<b>Brief Description</b>	<b>Detailed Description</b>
E23635	Complete B5 Balancing Machine with 0.75 kw (1 HP), 1750 RPM DC motor for <b>230VAC, 1 phase</b> , 50 or 60 Hz Operation	Complete B5 Balancing Machine includes a machine bed, 2 pedestals (the right pedestal is height adjustable, left is movable along the length of the bed), 2 roller work supports, drive motor with encoder, motor controller with regenerative braking and drive belts. For 230 VAC operation. This machine does not include a balancing instrument or sensors which must be purchased separately.

<b>Part Number</b>	<b>E23635 includes</b>
-	Basic B5 balancing machine with machine bed, 2 pedestals, drive motor, control console and motor controller.
E23917	Flat drive belt, 12mm wide x 3048mm long (0.5 x 120 in)
E23916	Flat drive belt, 12mm wide x 3556mm long (0.5 x 140 in)
E23915	Flat drive belt, 12mm wide x 4064mm long (0.5 x 160 in)
E13400	Roller work support, pivoting, no height adjustment with (2) 76mm dia x 13mm wide rollers (3x0.5 in). 2 included.
E23843	End thrust assemblies, 2 included
E23954	Operation manual for B5 Balancing System-English
<b>Part Number</b>	<b>Balancing Instrument Options</b>
E00303	Model 236 Digital Balancing Instrument with all accessories needed for balancing. Includes the 236 Balancing Instrument, two 546DP (direct prod) vibration sensors with brackets and magnetic tips, photoelectric speed sensor, reflective tape and all cables.
E00310	Model 246 Portable Balancing Instrument with all accessories needed for balancing. Includes the 246 Balancing Instrument, two 546DP (direct prod) vibration sensors with brackets and magnetic tips, photoelectric speed sensor, reflective tape and all cables.
E00577	Model 290 Touch Screen Balancing Computer with all accessories needed for balancing. Includes the 290 Balancing Instrument, two 546DP (direct prod) vibration sensors with brackets and magnetic tips, photoelectric speed sensor, reflective tape and all cables.

<b>Part Number</b>	<b>Other Options, Accessories, and Supplies</b>
E18806	Rotor safety hold down with counter roller. Fits E13400 roller work support, 2 recommended
E03803	V-Block Rotor Work Supports, 2 recommended
E24035	V-Block pivot assembly. Fits under V-Block, 2 recommended
E24916	Negative load hold down assembly for rotors with an outboard center of gravity. Fits E13400 roller work support and B5 pedestal suspension.
E13434	Replacement roller for standard E13400 roller work support, 76mm dia x 13mm, 2 required per work support.
E13435	Large diameter roller, 127mm dia x 13mm (5 x 0.5 in), fits directly in E13400. 2 required per roller work support.
E23630	Bed extension 1397 mm (55 in) long
E37749	Sliding safety enclosure for machine, non-interlocked.
E02785	546DP Vibration sensor only
E10170	Magnetic tip for 546DP vibration sensor
E11194	546DP Vibration sensor, magnetic tip and mtg. bracket kit
E04690	Cable for use with 544/546DP vibration sensor, 7.6m/25'
E21000	Photoelectric speed sensor, standard, reflective tape trigger, 25-610 mm (1-24 in) range
E21200	Reflective tape for use with speed sensor, 47.5m (150 ft)
E10179	Cable for use with E21000 photoelectric speed sensor, 7.6m/25'
E11820	Balancing wax, sold by the pound
E32147	Epoxy balancing weight compound kit, 2 lb package
E04753	Balancing weights, set of 16, C-shaped with set screw
E11946	Balancing clips for squirrel cage fans (7 sizes of 100 ea)

**web:** [www.irdbalancing.com](http://www.irdbalancing.com)  
**email:** [sales@irdbalancing.com](mailto:sales@irdbalancing.com)

**Headquarters for IRD Balancing**

Americas: 651-A Lakeview Plaza Blvd., Worthington, OH 43085, USA

Europe: Unit B4 Brymau One Estate, River Lane, Saltney, Chester CH4 8RG, UK

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Tel: (1) 614 431 5256

Fax: (1) 614 431 6365

Tel: +44 (0) 1244 682 222

Fax: +44 (0) 1244 677 977

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