

B Series - B200

11000 kg (25000 lb) Capacity

Horizontal Balancing Machine



HORIZONTAL AXIS, GENERAL PURPOSE, SOFT BEARING, BALANCING MACHINE

DESCRIPTION:

The B200 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 medium to heavy weight 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 left 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 B200 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: 11000 kg (25000 lb)
- Max. Rotor Dia.: 3150 mm (124 inches)
- Maximum Sensitivity: 14.5 g mm (0.6 g in)
- Standard Bed Length: 3353 mm (132 inches)



- Journal Diameter Range: 76 - 610 mm (3 - 24 inches)
- Journal-to-Journal Separation: 203 - 3150 mm (8 - 124 inches)
- Drive Type: Underslung Belt Drive with air belt tensioning
- Drive Motor (std): DC 18.6 kW (25 HP) Variable speed motor with encoder
- Balancing Speed Range: 250 to 4000 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: 5486 x 2375 x 1562 mm (l x w x h) (216 x 93.5 x 61.5 in) (l x w x h)
 - Weight: 2200 kg (4850 lb)
- General configuration (continued)
 - Power (std): 460VAC, 3 ph, 50 or 60 Hz
 - Temperature: Operating 0 to +40° C
 - Air supply: 480 to 690 kPa (70 to 100 psi)

OPTIONAL FEATURES:

- Rotor Safety Hold Downs
- V-Block Rotor Work Supports
- Negative Load Hold Downs
- Narrow Width Roller Work Supports
- Bed extensions
- 236 Digital Balancing Instrument
- 246 Portable Balancing Instrument
- 290 Touch Screen Balancing Computer
- Larger drive motor
- External transformers for other voltages

STANDARD CONFIGURATIONS:

| B200 Basic Machine | Brief Description | Detailed Description |
|--------------------|--|--|
| E08905 | Complete B200 Balancing Machine with 18.6 kW (25 HP) 2500 RPM, force ventilated, DC motor for 460VAC, 3 phase , 50 or 60 Hz Operation | Complete B200 Balancing Machine includes a machine bed, 2 pedestals (the left pedestal has height adjustment and 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 460 VAC operation. This machine does not include a balancing instrument or sensors which must be purchased separately. |
| E25980 | Complete B200 Balancing Machine with 30 kW (40 HP) 2500 RPM, force ventilated, DC motor for 460VAC, 3 phase , 50 or 60 Hz Operation | Same as E08905 above, except for 30 kW (40 HP) DC motor. |

| Part Number | E08905 and E25980 include |
|-------------|--|
| - | Basic B200 balancing machine with machine bed, pedestals, drive motor, control console and motor controller |
| E09108 | Flat drive belt, 76 mm wide x 4750 mm long (3 x 187 in) |
| E09109 | Flat drive belt, 76 mm wide x 5664 mm long (3 x 223 in) |
| E09110 | Flat drive belt, 76 mm wide x 6579 mm long (3 x 259 in) |
| E07725 | Roller Work supports, with two 127 mm dia x 68 mm wide rollers (5 x 2.69 in), 2 included |
| E07951 | Height adjustment module with 76 mm (3 in) vertical adjustment. Fitted on left pedestal |
| E08102 | Fixed height module. Fitted on right pedestal. |
| E08850 | Adjustment bar for height adjust module, E07951 |
| E36240 | End thrust assemblies, 2 included |
| E09781 | Operation manual for B200 Balancing System-English |
| E09475 | Lubrication fitting for roller |
| Part Number | Balancing Instrument Options |
| 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. |

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| Part Number | Other Options, Accessories, and Supplies |
|-------------|--|
| E13167 | Rotor safety hold down with counter roller, 2 recomnd'd |
| E09144 | V-block Rotor Work Supports, 2 recommended |
| E32354 | V-Block pivot assembly. Fits under V-Block, E09144, 2 recommended |
| E08147 | Negative load hold down assembly for rotors with an outboard center of gravity. Fits E07725 roller work support and B200 pedestal suspension. |
| E11713 | Replacement roller for standard E07725 roller work support, 127 mm dia x 68mm wide, 2 req'd per work support. |
| E11698 | Narrow width roller work support, pivoting, no height adjustment with (2) 100mm diax40mm wide rollers (4x1.6 in). Weight capacity:3500 kg (7500 lb) each work support. |
| E10491 | Bed extension 1200 mm (48 in) long |
| E11806 | Bed extension 2100 mm (84 in) long |
| E10492 | Bed extension 3400 mm (132 in) long |
| E30330 | Heavy duty end thrust assembly. End thrust frame fits to base instead of rear of pedestal. |
| E46785 | Air powered holding brake kit with drive pulley, brake disk and caliper for E08905 and E25980 machines. (1.875 inch motor shaft diameter.) |
| E39491 | Safety enclosure (perimeter fence) for machine, non-interlocked. |
| E02785 | 546DP Vibration sensor |
| E10170 | Magnetic tip for 546DP vibration sensor |
| E11194 | 546DP Vibration sensor, magnetic tip and mtg. bracket kit |
| 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) |
| 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) |

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