

B Series - B50F

2300 kg (5000 lb) Capacity

User Fabricated Balancing Machine



HORIZONTAL AXIS, GENERAL PURPOSE, SOFT BEARING, BALANCING MACHINE

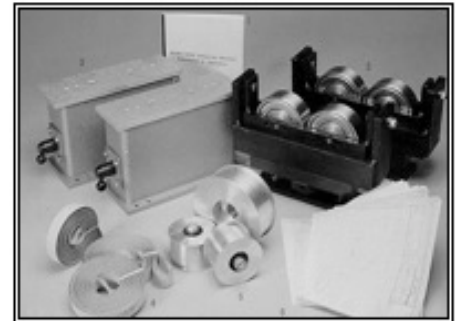
DESCRIPTION

The B50F is a dynamic, horizontal axis, soft-bearing Balancing Machine that is assembled with precision balancing parts supplied by IRD® and field fabrication by the user.

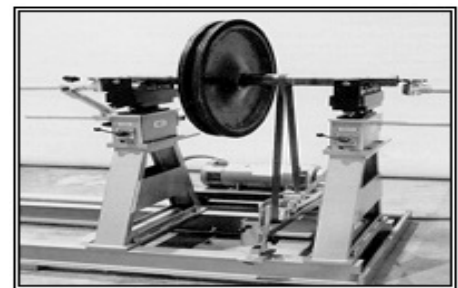
IRD® supplies two modular suspension work supports, two sets of roller work supports, drive motor pulley, idler pulleys, belts, end thrusts and fabrication drawings.

The customer supplies a machine bed, pedestals for mounting the modular suspension work supports, the drive motor, variable speed motor controller and a frame for the belt drive.

Optional instrument packages, V-Block rotor work supports, drive power systems and negative load hold downs are available.



B50F Kit of Parts, Typical



Typical User Fabricated Machine

GENERAL SPECIFICATIONS

- Weight Capacity: 2300 kg (5000 lb)
- Max. Rotor Dia: 2180 mm (85.8 in)
- Max. Sensitivity: 4 g mm (0.16 g in)
- Standard Bed Length: 2170 mm (85.4 in)
(User Fabricated)
- Journal Dia Range: 19 – 330 mm (0.75 – 13 in)
- Journal to Journal Separation: 140 – 2030 mm (5.5 – 80 in)
(Based on User Fabricated Bed)
- Drive Type: Underslung Belt Drive with manual belt tensioning
(User Fabricated - Idler Pulleys by IRD)
- Drive Motor Recommended: DC 3.7 kW (5 HP)
Variable speed (User Supplied)
- Balancing Speed Range: 250 to 6000 RPM
(Depends on Driven Rotor Diameter)
- Number of Balance Planes: 1 or 2
- Standard Parts Included:
 - (6) Flat Drive Belts
 - (2) Roller Work Supports
 - (2) Modular Suspension Work Supports
 - (2) End Thrust Assemblies
 - Drive Motor Pulley (Specify bore dia.)
 - (3) Idler Pulleys
 - Fabrication Drawings
- User Fabricated or Supplied Parts:
 - Fabricate the machine bed and pedestal support frames. Provide the drive system (motor, controls, belt drive frame).
- General Configuration (without rotor):
 - Dim: 4826 x 1830 x 1525 mm (l x w x h)
(190 x 72 x 60 in) (l x w x h)
 - Kit Weight: 250 kg (550 lb)

OPTIONAL FEATURES

- Rotor Safety Hold Downs
- V-Block Rotor Work Supports
- Negative Load Hold Downs
- Large Diameter Rollers
- Narrow Width Roller Work Supports
- 236 Desktop Balancing Instrument
- 246 Portable Balancing Instrument
- 295 Touch Screen Balancing Instrument
- Drive Motor/Controller

STANDARD CONFIGURATIONS

B50F Basic Machine	Brief Description	Detailed Description
E33200	Complete B50F Balancing Machine kit for motor with 28.5 mm / 1.125" diameter shaft.	Complete B50F Balancing Machine kit includes modular suspension work supports, roller work supports, belts, idler pulleys, drive pulley with 1.125" diameter bore, end thrust assemblies and fabrication drawings. This kit does not include a balancing instrument.
E36720	Complete B50F Balancing Machine kit for motors with 40 mm / 1.375" diameter shaft	Same as E33200 above, except with a 1.375" diameter bore drive pulley.

PARTS AND ACCESSORIES

Part #	E33200 and E36720 includes
E12314	Flat drive belt, 25mm wide x 2794mm long (1 x 110 in)
E12216	Flat drive belt, 25mm wide x 3048mm long (1 x 120 in)
E12217	Flat drive belt, 25mm wide x 3429mm long (1 x 135 in)
E12218	Flat drive belt, 25mm wide x 3810mm long (1 x 150 in)
E12219	Flat drive belt, 25mm wide x 4191mm long (1 x 165 in)
E12220	Flat drive belt, 25mm wide x 4572mm long (1 x 180 in)
E07500	Modular Suspension Work Supports, 2 included
E07379	Roller Work Supports with 80mm dia x 35mm wide rollers (3x1.38in), built-in 23 mm (.94in) height adjustment, 2 included
E07417	End thrust assemblies, 2 included
E07419	102 mm diameter (4 in) idler pulley assembly, 3 included
	150 mm diameter (6 in) motor drive pulley. E04466 (1.125" bore) or E04467 (1.375" bore)
E05410	Spanner wrench for adjusting work support height
	Fabrication Drawings: E33000 (Imperial) or E33300 (Metric)
E33002	Operation/Fabrication manual for B50F Balancing System

Part #	Other Options, Accessories and Supplies
E10247	Rotor safety hold down with counter roller, 2 recommended
E07416	V-block Rotor Work Supports, 2 recommended
E48306	V-block height adjust assembly, 23 mm (.94 in), with pivoting for use with V-block E07416
E13169	Negative load hold down assembly for rotors with an outboard center of gravity
E13165	Replacement roller for standard E07379 roller work support, 80mm dia x 35mm, 2 required per work support
E11360	Large diameter roller, 125mm dia x 40mm (4.9 x 1.56in), fits directly in E07379. 2 required per roller work support.
E13400	Narrow width roller work support, pivoting, no height adjustment with (2) 76mm dia x 13mm wide rollers (3x.5in). Weight capacity 340 kg (750 lb) each work support.
E18608	Height adjust assembly, 23 mm (.94 in), non-pivoting, for use with narrow width roller work support P/N E13400.
E29537	Fixed height assembly, non-pivoting, for use on opposite side when using height adjust, E18608 and E13400.
E02785	546DP Vibration sensor - no magnetic tip or mounting bracket
E10170	Magnetic tip for 546DP vibration sensor
E11194	546DP Vibration sensor, magnetic tip and mounting bracket
E21000	Photoelectric speed sensor, standard, reflective tape trigger, 25-610 mm (1 - 24 in) range
E21200	Reflective tape for use with speed sensor, 47.5 m (150 ft)
E11820	Balancing was, 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 each)

	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.
E00360	Model 295 Touch Screen Balancing Computer with all accessories needed for balancing. Includes the 295 Balancing Instrument, two 546DP (direct prod) vibration sensors with brackets and magnetic tips, photoelectric speed sensor, reflective tape and all cables.

web: www.irdbalancing.com
 email: sales@irdbalancing.com

IRD Balancing Offices (IRD LLC)

USA: Global Headquarters and Factory - IRD LLC, 4740 Allmond Ave, Louisville, KY 40209 USA
 Tel: (1) 502 366 0916 or (1) 888 473 2251 (US Toll Free) Fax: (1) 502 238 1001