

B Series - B50F

2300 kg (5000 lb) Capacity

User Fabricated Balancing Machine



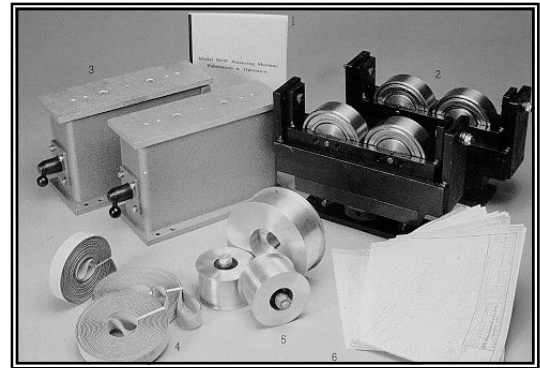
HORIZONTAL AXIS, GENERAL PURPOSE, SOFT BEARING, BALANCING MACHINE

DESCRIPTION:

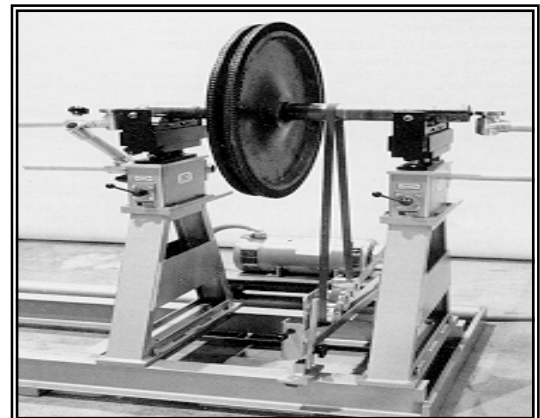
The B50F is a dynamic, horizontal axis, soft bearing Balancing Machine that is assembled with precision balancing parts supplied by IRD and others supplied or fabricated by the user. IRD supplies two modular suspension work supports, two sets of roller work supports, drive motor pulley (specify bore diameter), 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.

GENERAL SPECIFICATIONS:

- Weight Capacity: 2300 kg (5000 lb)
- Max. Rotor Diameter: 2180 mm (85.8 inches)
- Maximum Sensitivity: 4 g mm (0.16 g in)
- Standard Bed Length: 2170 mm (85.4 inches)
(User Fabricated)
- Journal Diameter Range: 19-330 mm (0.75-13 inches)
- Journal-to-Journal Separation: 140 - 2030 mm (5.5 - 80 inches)
(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 with motion locks, (2) end thrust assemblies, drive motor pulley (specify bore diameter), (3) idler pulleys and fabrication drawings.
- User Fabricated or Supplied Parts: Fabricate the machine bed and pedestal support frames. Provide the drive system (motor, controls, belt drive frame).



B50F Kit of Parts, typical



Typical User Fabricated Machine

- 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 Digital Balancing Instrument
- 246 Portable Balancing Instrument
- 290 Touch Screen Balancing Computer
- Drive motor/controllers

STANDARD CONFIGURATIONS:

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

E33200 and E36720 include	
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 diax35mm wide rollers (3x.1.38in), built-in 23 mm (.94in) height adjustment, 2 inc.
E07417	End thrust assemblies, 2 included
E07419	102 mm diameter (4") idler pulley assembly, 3 included
	150 mm diameter (6") motor drive pulley. E04466 (1.125" bore) or E04467 (1.375" bore)
E05140	Spanner wrench for adjusting work support height
	Fabrication drawings: E33000 (Imperial) or E33300 (Metric)
E33002	Operation/Fabrication manual for B50F Balancing System
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.

Other Options, Accessories, and Supplies	
E10427	Rotor safety hold down with counter roller, 2 recomd'd
E07416	V-block Rotor Work Supports, 2 recommended
E48306	V Block height adjust assembly, 23 mm (.94in), 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 diax35mm, 2 req'd per work support.
E11360	Large diameter roller, 125mm diax40mm (4.9x1.56in), fit directly in E07379. 2 req'd per roller work support.
E13400	Narrow width roller work support, pivoting, no height adjustment with (2) 76mm diax13mm wide rollers (3x.5 in). Weight capacity 340 kg (750 lb) each work support
E18608	Height adjust assembly, 23 mm (.94in), 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 mtg. bracket
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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Specifications are subject to change without prior notice.

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