

# B Series - B150F

## 7000 kg (15000 lb) Capacity

### User Fabricated Balancing Machine



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

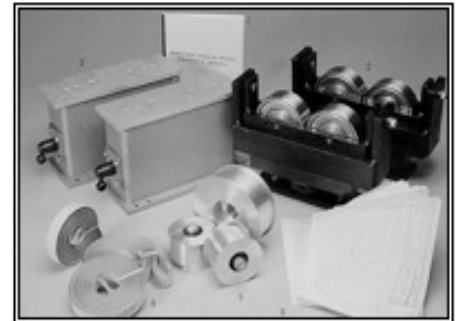
#### DESCRIPTION

The B150F 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.

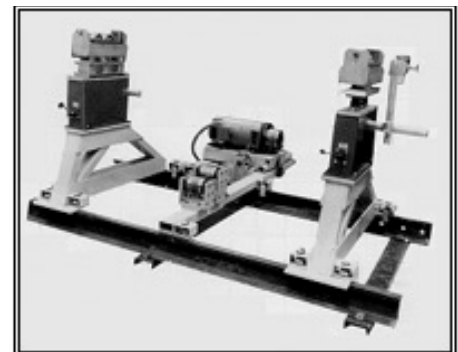
IRD® supplies two modular suspension work supports, two sets of roller work supports, drive motor pulley, idler pulleys, belts, end thrusts and fabrication drawings.

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.



**B150F Kit of Parts, Typical**



**Typical User Fabricated Machine**

#### GENERAL SPECIFICATIONS

- Weight Capacity: 7000 kg (15000 lb)
- Max. Rotor Dia: 2800 mm (110 in)
- Max. Sensitivity: 10 g mm (0.4 g in)
- Standard Bed Length: 3350 mm (132 in)  
(User Fabricated)
- Journal Dia Range: 25 – 381 mm (1 – 15 in)
- Journal to Journal Separation: 660 – 2950 mm (26 – 116 in)  
(Based on User Fabricated RR Track Bed)
- Drive Type: Underslung Belt Drive with manual belt tensioning  
(User Fabricated - Idler Pulleys by IRD)
- Drive Motor Recommended: DC 11 kW (15 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:
  - (4) Flat Drive Belts
  - (2) Roller Work Supports
  - (2) Modular Suspension Work Supports
  - Height Adjustment Assembly
  - (2) End Thrust Assemblies
  - Drive Motor Pulley w/ (3) shaft mtg bushings
  - (2) Idler Pulley Assemblies
  - 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 2820 x 1625 mm (l x w x h)  
(190 x 111 x 64 in) (l x w x h)
  - Kit Weight: 454 kg (1000 lb)

#### OPTIONAL FEATURES

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

## STANDARD CONFIGURATIONS

B150F Basic Machine	Brief Description	Detailed Description
E43071	Complete B150F Balancing Machine kit for motors with 34.9 mm / 1.375", 41.3mm/1.625" or 47.6mm/1.875" diameter shaft.	Complete B150F Balancing Machine kit includes modular suspension work supports, roller work supports, height adjustment assembly, fixed height assembly, belts, idler pulley assemblies, drive pulley with (3) bushings for different diameter bores, end thrust assemblies and fabrication drawings. This kit does not include a balancing instrument.

## PARTS AND ACCESSORIES

Part #	E43071 includes
E12442	Flat drive belt, 51mm wide x 5537mm long (2 x 218 in)
E12443	Flat drive belt, 51mm wide x 6147mm long (2 x 242 in)
E12444	Flat drive belt, 51mm wide x 6756mm long (2 x 266 in)
E12445	Flat drive belt, 51mm wide x 7366mm long (2 x 290 in)
E07600	Modular Suspension Work Supports, 2 included
E11698	Roller Work Supports with 100mm dia x 40mm wide rollers (3.94x1.56in), 2 included
E07951	Height adjustment module for E11698 roller work support
E08102	Fixed height (95mm/3.75") module for E11698 roller work support
E36240	End thrust assemblies, 2 included
E09679	152 mm diameter (6") idler pulley, 2 included
E46543	203 mm diameter (8") motor drive pulley with bushing for 47.6mm/1.875 in bore motor shaft
	Additional drive pulley bushings: E30064 for 34.9mm/1.375" bore and E35034 for 41.3mm/1.625" bore
E09367	Fabrication Drawings
E09782	Operation/Fabrication manual for B150F Balancing System

Part #	Other Options, Accessories and Supplies
E12060	Rotor safety hold down with counter roller, 2 recommended
E07416	V-block Rotor Work Supports, 2 recommended
E13444	V-block mounting assembly with pivoting for use with V-block, E07416
E32638	Negative load hold down assembly for rotors with an outboard center of gravity
E11785	Replacement roller for standard E11698 roller work support, 100mm dia x 40mm, 2 required per work support
E11784	Large diameter roller, 150mm dia x 49mm (5.9 x 1.94in), fits directly in E11698. 2 required per roller work support.
E48674	Railroad track bed assembly, 3353mm L x 280mm H (132 x 11in)
E45988-2	11.2kW (15 HP) Motor/Console Assembly. Includes a 2500 RPM DC motor with 1.875" dia. shaft, 5.25" centerline height, angular location sensor, 17'/5.2m flex conduit connected to a 42"/1067mm high control console with a variable speed regenerative braking drive controller mounted inside, operator control panel and circuit breaker; wired for 460VAC, 3-phase operation. Specify 60 or 50Hz on order.
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.

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