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.

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 (User Fabricated)
- Journal Dia Range: 25 – 381 mm (1 – 15 in)
- Journal to Journal Separation: 660 – 2950 mm (26 – 116 in)
- 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
  - 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
### B150F Basic Machine

<table>
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<tr>
<th>Part #</th>
<th>Brief Description</th>
<th>Detailed Description</th>
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<tbody>
<tr>
<td>E43071</td>
<td>Complete B150F Balancing Machine kit for motors with 34.9 mm / 1.375&quot;, 41.3mm/1.625&quot; or 47.6mm/1.875&quot; diameter shaft.</td>
<td>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.</td>
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### PARTS AND ACCESSORIES

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<th>Part #</th>
<th>Other Options, Accessories and Supplies</th>
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<tr>
<td>E12442</td>
<td>Flat drive belt, 51mm wide x 5537mm long (2 x 218 in)</td>
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<tr>
<td>E12443</td>
<td>Flat drive belt, 51mm wide x 6147mm long (2 x 242 in)</td>
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<tr>
<td>E12444</td>
<td>Flat drive belt, 51mm wide x 6756mm long (2 x 266 in)</td>
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<tr>
<td>E12445</td>
<td>Flat drive belt, 51mm wide x 7366mm long (2 x 290 in)</td>
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<tr>
<td>E07600</td>
<td>Modular Suspension Work Supports, 2 included</td>
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<tr>
<td>E11698</td>
<td>Roller Work Supports with 100mm dia x 40mm wide rollers (3.94x1.56in), 2 included</td>
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<tr>
<td>E07951</td>
<td>Height adjustment module for E11698 roller work support</td>
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<tr>
<td>E08102</td>
<td>Fixed height (95mm/3.75&quot;) module for E11698 roller work support</td>
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<tr>
<td>E36240</td>
<td>End thrust assemblies, 2 included</td>
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<tr>
<td>E09679</td>
<td>152 mm diameter (6&quot;) idler pulley, 2 included</td>
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<tr>
<td>E46543</td>
<td>203 mm diameter (8&quot;) motor drive pulley with bushing for 47.6mm/1.875 in bore motor shaft</td>
</tr>
<tr>
<td>E32638</td>
<td>203 mm diameter (8&quot;) motor drive pulley with bushing for 47.6mm/1.875 in bore motor shaft</td>
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<tr>
<td>E09367</td>
<td>Fabrication Drawings</td>
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<td>E09782</td>
<td>Operation/Fabrication manual for B150F Balancing System</td>
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**Balancing Instrument Options**

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<tr>
<td>E00303</td>
<td>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.</td>
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<tr>
<td>E00310</td>
<td>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.</td>
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<tr>
<td>E00360</td>
<td>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.</td>
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**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

**Other Options, Accessories and Supplies**

- E10600 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/.52mm 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
- E10600 Balancing clips for squirrel cage fans (7 sizes of 100 each)