

INSTRUMENTED TREADMILLS

Bertec's line of instrumented treadmills is designed to reduce gait laboratory space requirements and eliminate the limitations inherent in a traditional gait walkway.



Design

Unique design features result in superior dynamic characteristics of the treadmill. The dual belt treadmill has two belts which can be controlled independently, each half having its own 6-modular incline feature that can be added to the system for uphill and downhill analysis of movements. The control electronics incorporate medically isolated transformers.

A smaller version of FIT is available for animal studies (Mini-FIT). The Mini-FIT can be configured to have four belts which independently measure forces for quadrupedal animal studies (Quad-FIT).

Bertec treadmills are mounted on mounting plates, which are glued to the floor. Such a configuration along with total isolation of each half from the other ensures stable operation of the treadmill.

Unique Features

- Independent 6-component load measurement from each belt (Fx, Fy, Fz, Mx, My, Mx).
- Independent control of individual belts in both directions.
- No signal interference from outside sources with 100% digital encoding.
- One year standard warrenty with optional maintenance packages.



Standard Treadmill Configuration

	Fully Instrumented Treadmill (FIT)	Mini-FIT for Animal Application	Quad-FIT for Quadrupedal Applications
Max Load Range, N (lb)	Fx, Fy: 2,500 (550) Fz: 5,000 (1,100)	Fx, Fy: 1,250 (275) Fz: 2,500 (550)	Fx, Fy: 1,250 (275) Fz: 2,500 (550)
Speed Range, km/h (mi/h)	0-24 (0-15)	0-24 (0-15)	0-24 (0-15)
Acceleration, m/s ² (ft/s ²)	0-25 (0-82)	0-25 (0-82)	0-25 (0-82)
Number of Belts	2	2	4
Size of Belts	Two independent running belts, approximately 1.75 m (69.5 in) long and 0.5 m (20 in) wide per belt.	Two independent running belts, approximately 1 m (40 in) long and 0.3 m (12 in) wide per belt. 0.15 m (6 in) wide version available.	Four independent running belts, approximately 1 m (40 in) long and 0.3 m (12 in) wide per belt.
Walking Surface, m (in)	1.75 x 1 (69.5 x 40)	1 x 0.6 (40 x 24) 1 x 0.3 (40 x 12)	2 x 0.6 (80 x 24)

Optional Equipment

Incline:

Do more tests. Analyze uphill and downhill movements up to 15 degrees.

Overhead Structure and Harness: Ensures patient safety. Prevents falls and off-track movement. Users can be comfortable and confident during testing.



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