

# **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 warranty 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/s² (ft/s²)	0-25 (0-82)	0-25 (0-82)	0-25 (0-82)
Number of Belts	2	2	4
Size of Belts	Two independent force measuring running belts, approximately 1.75 m (70 in) long and 0.5 m (20 in) wide per belt.	Two independent force measuring 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 force measuring running belts, approximately 1 m (40 in) long and 0.3 m (12 in) wide per belt. Left side speed is controlled separately from the right side speed.  *0.15 m (6 in) wide version available.
Walking Surface, m (in)	1.75 x 1 (approx. 70 x 40)	1 x 0.6 (approx. 40 x 24) 1 x 0.3 (approx. 40 x 12)	2 x 0.6 (approx. 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.





Bertec Corporation 6171 Huntley Road, Suite J Columbus, OH 43229 U.S.A.