

Power Consumption Analysis of Life Fitness Elevation Series 95T Engage, Technogym Excite Run 900E, Star Trac P Series, Precor 932i Treadmills and Matrix T7xe

On December 16 and 17, 2009 Intertek conducted an Energy Consumption Analysis of treadmills at Life Fitness' facility in Franklin Park, Illinois.

Treadmill Evaluation Process:

Each treadmill was operated for a 15 minute warm-up period at a 3.5 MPH speed before recording any values. The same user, weighing 220 lbs, operated the treadmills throughout the testing process.

The energy consumption of each of the treadmills was evaluated at four different speeds:

- 3.5 Miles per hour
- 5.0 Miles per hour
- 7.0 Miles per hour
- 9.0 Miles per hour

A tachometer was used to verify the displayed speed of each unit. The energy consumption was averaged for a period of 30 seconds at each speed before any measurement.

Treadmill Evaluation Results

The average power consumption recorded in Watts during the tests for the Life Fitness Elevation Series 95T Engage Treadmill, Technogym Excite Run 900E, Star Trac P Series, Precor 932i and Matrix T7xe at each of the speeds is as follows:

Life Fitness Elevation Series 95T Engage Treadmill		
SPEED (MPH)	AVERAGE POWER CONSUMPTION (WATTS)	
3.5	284.69	2.37 amps
5.0	303.5	2.53 amps
7.0	354.49	2.95 amps
9.0	572.36	4.77 amps

Technogym Excite Run 900E		
SPEED (MPH)	AVERAGE POWER CONSUMPTION (WATTS)	
3.5	508.4	4.24 amps
5.0	673.8	5.62 amps
7.0	883.3	7.36 amps
9.0	1082.5	9.02 amps

Precor 932i		
SPEED (MPH)	AVERAGE POWER CONSUMPTION (WATTS)	
3.5	383.61	3.20 amps
5.0	505.8	4.22 amps
7.0	710.1	5.92 amps
9.0	927.8	7.73 amps

Star Trac P Series		
SPEED (MPH)	AVERAGE POWER CONSUMPTION (WATTS)	
3.5	343.4	2.86 amps
5.0	550.2	4.56 amps
7.0	645.97	5.40 amps
9.0	872.4	7.30 amps

Matrix T7xe		
SPEED (MPH)	AVERAGE POWER CONSUMPTION (WATTS)	
3.5	319.95	2.67 amps
5.0	360.6	3.00 amps
7.0	455.38	3.79 amps
9.0	612.09	5.10 amps

Notes:

- * The conversion of Watts to Amps assumes a constant 120 Volts.
- ** The conversion of Watts to Amps at fixed voltage is governed by the equation Amps = Watts/Volts