

Standard Specification for Motorized Treadmills¹

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INTRODUCTION

The goal of this specification is to promote proper mechanical design and manufacturing practices for motorized treadmills. Through these practices, this specification aims to assist designers and manufacturers in producing functional, safe machines under proper operational conditions. The equipment user must recognize, however, that a standard alone will not necessarily prevent injuries. Like other physical activities, exercise involving treadmills involves the risk of injury, particularly if the equipment is used improperly. The designers and manufacturers of treadmills should also consider other standards including, but not limited to, those listed below. This specification does not apply to treadmills designed for underwater use.

1. Scope

1.1 This specification covers the establishment of parameters for the design and manufacture of motorized treadmills.

1.2 It is intent of this specification to specify products for use by individuals age 13 and above.

1.3 This standard is to be used in conjunction with Specification F2276, Test Methods F2571, and Test Methods F2106.

1.4 This standard takes precedence over Specification F2276 and Test Methods F2571 in areas that are specific to motorized treadmills.

1.5 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

¹ This specification is under the jurisdiction of ASTM Committee F08 on Sports Equipment, Playing Surfaces, and Facilities and is the direct responsibility of Subcommittee F08.30 on Fitness Products.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

F1749 Specification for Fitness Equipment and Fitness Facility Safety Signage and Labels

F2106 Test Methods for Evaluating Design and Performance Characteristics of Motorized Treadmills

F2276 Specification for Fitness Equipment

F2571 Test Methods for Evaluating Design and Performance Characteristics of Fitness Equipment

2.2 *UL Standards:*³

UL 1647 Motor Operated Massage and Exercise Machines

3. Terminology

3.1 The terms listed below are unique to this specification. For terms not defined below, refer to Specification F2276.

3.2 For treadmill terminology, see Fig. 1.

3.3 *Definitions:*

3.3.1 *adjustable incline system, n*—components that allow the user to vary the angle of the moving surface relative to the floor.

3.3.2 *catch point, n*—location at which edges, protrusions, or surfaces allow a body part to become injured or clothing to be damaged.

3.3.3 *control panel, n*—machine/user interface device for controlling the operation of or displaying information about the operational state of the treadmill.

3.3.4 *cycle, n*—refers to one application of load to specifications required in the standard followed by removal of that load.

3.3.5 *deck, n*—component that supports the moving surface.

³ Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.