



Standard Test Methods for Evaluating Design and Performance Characteristics of Elliptical Trainers¹

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INTRODUCTION

The goal of these test methods is to provide reliable and repeatable methods for the evaluation of elliptical trainers. The equipment user must recognize, however, that a standard alone will not necessarily prevent injuries. Like other physical activities, exercise involving fitness equipment involves the risk of injury, particularly if the equipment is used improperly or not properly maintained. In addition, users with physical limitations should seek medical advice or instruction from the fitness facility, or both, prior to using this equipment. Certain physical conditions or limitations may preclude some persons from using this equipment properly and without increasing the risk of serious injury.

1. Scope

1.1 These test methods specify procedures and equipment used for testing and evaluating elliptical trainers for compliance to Specification **F2810**. Both design and operational parameters will be evaluated. Where possible and applicable, accepted test methods from other recognized bodies will be used and referenced. In case of a conflict between this document and Specification **F2810**, Specification **F2810** takes precedence.

1.2 *Requirements*—An elliptical trainer is to be tested for all of the following parameters:

- 1.2.1 Endurance,
- 1.2.2 Static loading,
 - 1.2.2.1 Handlebars
 - 1.2.2.2 Foot supports
- 1.2.3 Adjustable guide systems,
- 1.2.4 Control panel,
- 1.2.5 Warnings, and
- 1.2.6 Documentation.

1.3 This test method² contains additional requirements to address the accessibility of the equipment for persons with disabilities.

¹ These test methods are 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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1.4 The values stated in SI units are to be regarded as the standard. The values in parenthesis are for information only.

1.5 *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*:³

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

F2276 Specification for Fitness Equipment

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

F2810 Specification for Elliptical Trainers

F3021 Specification for Universal Design of Fitness Equipment for Inclusive Use by Persons with Functional Limitations and Impairments

F3022 Test Method for Evaluating the Universal Design of Fitness Equipment for Inclusive Use by Persons with Functional Limitations and Impairments

3. Terminology

3.1 *Definitions*—For definitions applicable to this standard, see Specifications **F2810** and **F3021**.

³ 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.